CITY COUNCIL AGENDA ITEM COVER MEMO

		Agend	a Item N	umber
Meeting Type: Regular		Meetin	g Date:	11/1/2012
Action Requested By: Engineering		_	ida Item lution	Туре
Subject Matter:				
Agreement with Garver,	L.L.C.			
Exact Wording for the Ag				
Resolution authorizing t Engineering Design Sen 20, Project No. 6	vices for Greenbrier I			
=				6
Note: If amendment,	olease state title a	nd number of the or	iginal	
Item to be considered fo	r: <u>Action</u> Ur	animous Consent Req	uired: <u>N</u>	<u>o</u>
Briefly state why the act provide, allow and accomplish and; any		•	hat Cour	icil action will
Engineering services cordivided roadway near Gi Highway 20 to include in total contract amount of	ntract to provide fina reenbrier Road begin stersection and railro	l design plans for appr ning at I-565 to appro ad crossing design. De	oximately esign ser	200-feet north of Old
Associated Cost:		Budgete	d Item:S	elect
MAYOR RECOMMENDS O Department Head:	R CONCURS: Select	-	Date:	10/19/12
Tev Sed 3/12/2012	ar assessment of the second of		•	

ROUTING SLIP CONTRACTS AND AGREEMENTS

Originating Department: Engineering

Council Meeting Date: 11/1/2012

Department Contact: Lynn Majors

Phone # 256-427-5201

Contract or Agreement: Engineering Design Services

Document Name: Garver-Greenbrier Parkway-Project No. 65-13-RD02

City Obligation Amount:

\$473,499.00

Total Project Budget:

\$473,499.00

Uncommitted Account Balance:

0

Account Number:

23-6500-0813-8152

	Procurement Agreements
Not Applicable	Not Applicable
0.0000 - 0.000 - 0.000 - 0.000 - 0.000	Grant-Funded Agreements

Not	Grant Name:
<u>Applicable</u>	

Department	Signature	, Pate
1) Originating	12mg	10/19/12
2) Legal	They Cales	10/22/12
3) Finance		10/21/12
4) Originating		
5) Copy Distribution		
a. Mayor's office (1 copies)		
b. Clerk-Treasurer(Original & 2 copies)		

RESOLUTION NO. 12-

BE IT RESOLVED by the City Council of the City of Huntsville, Alabama, that the Mayor be, and is hereby authorized, to enter into an agreement with Garver, L.L.C. in the amount of FOUR HUNDRED SEVENTY-THREE THOUSAND FOUR HUNDRED NINETY-NINE AND NO/100 DOLLARS (\$473,499.00) for Engineering Design Services for Greenbrier Parkway, Phase I, from I-565 to North of Old Highway 20, Project No. 65-13-RD02, in Huntsville, Alabama, on behalf of the City of Huntsville, a municipal corporation in the State of Alabama, which said agreement is substantially in words and figures similar to that document attached hereto and identified as "Agreement between City of Huntsville and Garver, L.L.C. for Engineering Design Services for Greenbrier Parkway, Phase I, from I-565 to North of Old Highway 20, Project No. 65-13-RD02" consisting of a total of twenty (20) pages plus fifty-two (52) additional pages consisting of Attachments 1-15, and the date of November 1, 2012, appearing on the margin of the first page, together with the signature of the President or President Pro Tem of the City Council, and an executed copy of said document being permanently kept on file in the Office of the City Clerk of the City of Huntsville, Alabama.

ADOPTED	this	the _	1st	day	of _	Nove	mber	· · · · · · · · · · · · · · · · · · ·			2012.
									Counci		
APPROVEI) this	s the	lst	day	of _	Nove	mber				2012.
				Mayo	or of	f the	City	of H	luntsvi	lle,	

Alabama

AGREEMENT BETWEEN

CITY OF HUNTSVILLE, ALABAMA

AND

GARVER, L.L.C.

FOR

ENGINEERING DESIGN SERVICES

FOR

GREENBRIER PARKWAY, PHASE I, FROM I-565 TO NORTH OF OLD HIGHWAY 20

Project I.D Number 65-13-RD02 November 1, 2012

President of the City Council of the City of Huntsville, AL

Date: November 1, 2012

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AGREEMENT BETWEEN

CITY OF HUNTSVILLE, ALABAMA
AND
GARVER, L.L.C.
FOR
ENGINEERING DESIGN SERVICES
FOR
GREENBRIER PARKWAY, PHASE I, FROM I-565 TO NORTH OF
OLD HIGHWAY 20

Project I.D Number 65-13-RD02

THIS AGREEMENT made as of the 1st day of November in the year 2012, by and between the CITY OF HUNTSVILLE, ALABAMA (hereinafter called OWNER), and GARVER, L.L.C., (hereinafter called ENGINEER).

WITNESSETH, for the considerations hereinafter set forth, the parties hereto agree as follows:

ARTICLE 1 - ENGAGEMENT OF THE ENGINEER

The OWNER hereby engages the ENGINEER, and the ENGINEER hereby accepts the engagement to provide general engineering and consultation as a representative of the OWNER to include the following:

- 1.1 Professional engineering services for design of Greenbrier Parkway, Phase I, from I-565 to North of Old Highway 20, Project No. 65-13-RD02, as further described in ARTICLE 2, and hereinafter called PROJECT.
- 1.2 By executing this Agreement, the ENGINEER represents to the OWNER that the ENGINEER is a professional qualified to act as the ENGINEER for the PROJECT and is licensed and certified to practice engineering by all public entities having jurisdiction over the ENGINEER and the PROJECT. The ENGINEER further represents to the OWNER that the ENGINEER will maintain all necessary licenses, certifications, permits or other authorizations necessary to act as ENGINEER for the PROJECT until the ENGINEER's remaining duties hereunder have been satisfied. The ENGINEER shall assign only qualified personnel to perform any service concerning the PROJECT. All services rendered by the ENGINEER for the PROJECT shall be performed by or under the immediate supervision of experienced and qualified professionals licensed, certified, and registered as appropriate in the State of Alabama possessing the expertise in the discipline of the service being rendered. The ENGINEER assumes full responsibility to the OWNER for the negligent acts, errors and omissions of its consultants or others employed or retained by the ENGINEER in connection with the PROJECT.
- 1.3 Execution of this Agreement by the ENGINEER constitutes a representation that the ENGINEER has become familiar with the PROJECT site and the local conditions under

which the PROJECT is to be implemented. The ENGINEER agrees to provide all necessary engineering services required to professionally accomplish the ENGINEER's defined scope of services.

ARTICLE 2 - DESIGN SERVICES OF THE ENGINEER

- 2.1 ENGINEER shall provide for OWNER professional engineering services for design of Greenbrier Parkway, Phase I, from I-565 to North of Old Highway 20.
- 2.2 These services shall include consultation and advice; customary civil, structural, mechanical and electrical engineering design services; and Architectural services incidental thereto, as outlined herein and further described in the SCOPE OF SERVICES, ATTACHMENT 1.
- 2.3 Upon the OWNERS authorization, the ENGINEER shall prepare construction documents consisting of drawings and specifications setting forth in detail the requirements for construction of the PROJECT. The ENGINEER warrants that such construction documents are accurate, coordinated and adequate for the construction and in conformity and comply with applicable laws, codes and regulations. Products specified for use shall be readily available unless written authorization to the contrary is given by the OWNER. Products or materials specified by the ENGINEER that are available from only one source shall be justified in writing by the ENGINEER in order to meet applicable federal, state, or local procurement or bid requirements.
- 2.4 The ENGINEER shall prepare appropriate bid alternates as necessary in order to assure that the PROJECT can be awarded within the PROJECT budget limitations.
- 2.5 The ENGINEER shall serve as the OWNER's professional representative in those portions of the PROJECT to which this Agreement applies and shall consult with and advise the OWNER during the performance of these services.
- 2.6 The ENGINEER shall incorporate into its design, and into its final work products, the requirements contained within the OWNER's engineering standards, standard specifications, and design manuals referenced in ATTACHMENT 3. The requirements of the State of Alabama Department of Transportation design standards shall be reviewed for applicability and incorporated into portions of the work where joint participation between the OWNER and the State is applicable. When conflicts are noted between the OWNERS requirements and standards of others, the OWNERS standards shall take precedent. Discrepancies shall be brought to the attention of the OWNER. Deviations from OWNER's requirements shall be identified to the OWNER by the ENGINEER in writing prior to incorporating the changes.
- 2.7 The ENGINEER shall obtain all Planning Commission approvals with regard to location, character and extent, as required.
- 2.8 The ENGINEER shall obtain a Utility Project Notification Form (Attachment 10) from all affected utilities on the project by the 60% design review stage. Acceptance shall be provided as a signed original by all affected parties at the 90% design review stage.
- 2.9 The ENGINEER shall promptly correct, or have corrected, any errors, omissions, deficiencies or conflicts in the ENGINEER's work product or that of his sub-contractors/sub-consultants, without additional compensation for time, reproduction or distribution.
- 2.10 During the process of design and preparation of the construction documents, the ENGINEER shall review with the OWNER the construction documents, the estimate of probable construction cost, schedule, and other design services issues. Such review shall be, at a minimum, as outlined in ATTACHMENT 4 as 0%, 30%, 60%, and 90% completion stage.

Following such reviews, the ENGINEER shall make any appropriate revisions thereto to assure compliance with the OWNER's requirements.

2.11 Field surveying work is required and shall be performed in accordance with "Standards of Practice for Surveying in the State of Alabama" as required by the Alabama Board of Registration for Engineering and Land Surveyors. Surveying shall include P.K. Nails or other permanent stationing markings as well as staking of right-of-way, easements and parcels of land acquired by the City of Huntsville. Property corners shall be set at the new right-of-way. Easements shall be staked as requested by the City of Huntsville. The above field work shall be performed as a minimum as needed at the time of right-of-way acquisition and one additional time near the 100% submittal stage as determined by the OWNER. The cost for these services is included in the fees for Basic Services.

Survey data shall be based on a US Public Land Survey System corner or quarter corner. Said corner or quarter corner shall be field verified by the surveyor and a state plane coordinate provided in deliverables submitted to the City of Huntsville. All survey work shall be based on the following datum's:

Coordinate System:

US State Plane

Zone:

Alabama East 0101

Vertical Datum:

The North American Vertical Datum of 1988 (NAVD 88)

Horizontal Datum:

The North American Datum of 1983 (NAD 83)

Geoid Model:

Geoid03

Units:

US Survey Feet

- 2.12 The ENGINEER shall comply with the City of Huntsville Tree Ordinance and carry the requirements referenced therein with deliverables (drawings, specifications, etc.) in accordance with Section 27-57 of the City of Huntsville Code of Ordinances (Ord. No. 04-45, §13, 2-12-2004).
- 2.13 The ENGINEER shall prepare the prebid agenda after obtaining comments from stakeholders such as affected utilities, City of Huntsville Construction Project Engineer and Inspector(s), and other City of Huntsville departments as applicable. The ENGINEER shall moderate the prebid meeting, prepare meeting minutes, make clarifications, prepare addendums, and distribute to bidders.
- A valid City of Huntsville license shall be maintained throughout the term of this contract. Additionally, the engineering firm shall be required to obtain and pay for all other federal, state or local permits, licenses, and fees which may be necessary or required in order to perform the work detailed herein.

ARTICLE 3 - CONSTRUCTION ADMINISTRATION SERVICES OMITTED

ARTICLE 4 - ADDITIONAL SERVICES

The following services of the ENGINEER are not included in Article 2. Nevertheless, the ENGINEER shall provide such services if authorized in writing by the OWNER, and they shall be paid for by the OWNER as provided in Article 7, unless otherwise noted.

4.1 Making revision in drawings, specifications or other documents when such revisions are inconsistent with written direction by the OWNER previously given, are required by the enactment of revision of codes, laws or regulations subsequent to the preparation of such

- documents and not reasonably anticipated, or are due to other causes not within the control or responsibility of the ENGINEER, either in whole or in part.
- 4.2 Preparing drawings, specifications and supporting data in connection with change orders, provided that such change orders are issued by the OWNER due to causes not within the control or responsibility of the ENGINEER, either in whole or in part.
- 4.3 Providing additional services for repair or replacement of work damaged by acts of God or other cause during construction provided that such services are required by causes not the responsibility of the ENGINEER, either in whole or in part.
- Providing services not otherwise required herein which are made necessary solely by the default of the ENGINEER or major defects or deficiencies in the work of the ENGINEER. These services shall be provided with no increase in the contract amount and will not be compensable on an hourly basis.
- **4.5** Providing expert witness services and other services arising out of claims.
- **4.6** Provide services to stake site during construction.

ARTICLE 5 - RESPONSIBILITIES OF OWNER

The OWNER, without cost to the ENGINEER, will perform the following in a timely manner so as not to delay the services of the ENGINEER:

- 5.1 Assist ENGINEER by placing at ENGINEER's disposal all available information pertinent to the PROJECT including previous reports and any other data relative to design or construction of the PROJECT.
- 5.2 Provide all criteria and full information as to OWNER's requirements for the PROJECT, including design objectives and constraints, space, capacity and performance requirements, flexibility and expendability, and any budgetary limitations. The OWNER shall also furnish copies of all design and construction standards, which OWNER will require to be included in the drawings and specifications.
- 5.3 Assist the ENGINEER as necessary in acquiring access to and making all provisions for the ENGINEER to enter upon public and private lands as required for the ENGINEER to perform the work under this agreement.
- Designate in writing a person to act as the OWNER's representative with respect to the work to be performed under this Agreement, such person to have complete authority to transmit instructions, receive information, interpret and define the OWNER's policies and decision with respect to materials, equipment elements and systems pertinent to the work covered by this Agreement. Examine all studies, reports, sketches, drawings, specifications, proposals and other documents presented by ENGINEER, obtain advice of an attorney, insurance counselor and other consultants as OWNER determines appropriate for such examination and render in writing decisions pertaining thereto within a reasonable time so as not to delay the services of ENGINEER.
- When requested by the ENGINEER, the OWNER will intercede on the ENGINEER's behalf when data from, or reviewed by third parties is not on schedule through no fault of the ENGINEER
- 5.6 The OWNER's review of any documents prepared by the ENGINEER or its consultants shall be solely for the purpose of determining whether such documents are generally consistent

with the OWNER's intent. No review of such documents shall relieve the ENGINEER of its responsibility for the accuracy, adequacy, fitness, suitability and coordination of its work product.

ARTICLE 6 - PERIOD OF SERVICES

The ENGINEER shall commence services pursuant to this agreement as of November 2, 2012. The final completion date for the completion of design services as outlined in Article 2 shall be November 2, 2013.

The ENGINEER shall perform these services with reasonable diligence and expediency consistent with sound professional practices. The ENGINEER shall include in his schedule an allowance for time required for OWNER's review of submissions and for approvals of authorities having jurisdiction over the PROJECT. When approved by the OWNER, the schedule shall not be exceeded by the ENGINEER, except for cause.

If the ENGINEER becomes aware of delays due to time allowances for review and approval being exceeded, delay by the OWNER, the OWNER's consultants, or any other reason beyond the ENGINEER's control, which may result in the schedule of performance of the ENGINEER's services not being met, the ENGINEER shall promptly notify the OWNER. If the OWNER becomes aware of any delays or other causes that will affect the ENGINEER's schedule, the OWNER shall promptly notify the ENGINEER. In either event, the ENGINEER's schedule for performance of its services shall be equitably adjusted.

ARTICLE 7 - PAYMENT TO THE ENGINEER

7.1 BASIC SERVICES

The OWNER shall compensate the ENGINEER for services rendered pursuant to this Agreement, excepting those services described as Additional Services in Article 4 of this Agreement, by payment of the LUMP SUM TOTAL CONTRACT AMOUNT OF FOUR HUNDRED SEVENTY-THREE THOUSAND FOUR HUNDRED NINETY-NINE AND NO/100 DOLLARS (\$473,499.00) for design services as described in Article 2. Additional services of the ENGINEER as described in Article 4, if any, shall be compensated on an hourly basis in accordance with Attachment 5.

7.2 REIMBURSABLE EXPENSES

The scope of work for sub-contracted services is defined in the ENGINEER's scope of services, Attachment 1. The scope includes provisions for administration expenses for subcontracted services and reimbursable direct expenses including but not limited to laboratory tests and analyses; computer services; word processing services; permit fees, bonds, telephone, printing, binding and reproduction charges; and other similar costs. Indirect costs will have administrative fee reimbursements limited to no more than 5%. Direct costs are also limited to no more than 5% reimbursement.

Reimbursable expenses shall be limited during the term of this agreement as stated in Art. 7.1 Basic Services.

7.3 NOT TO EXCEED (NTE) CEILING PRICE (N/A)

NTE Ceiling price. The City of Huntsville (COH) will not be obligated to pay the ENGINEER any amount in excess of the NTE ceiling price as per Attachment "1" and the ENGINEER shall not be obligated to continue performance if to do so would exceed the NTE ceiling price set forth In the referenced attachment, unless and until the COH notifies the ENGINEER in writing that the NTE ceiling price has been increased and specifies in the notice a revised

NTE ceiling that shall constitute the NTE ceiling price for performance under this contract. NTE ceiling price increase will be done by a written unilateral change order to the contract issued by the OWNER that will not require the ENGINEER's approval. When and to the extent that the NTE ceiling price set forth in the referenced attachment has been increased, any hours expended and material costs incurred by the ENGINEER in excess of the NTE ceiling price before the increase shall be allowable to the same extent as if the hours expended and material costs had been incurred after the increase in the NTE ceiling price.

7.4 EFFECTIVE DATE

This contract shall have no force or effect unless and until it is executed by the OWNER and the ENGINEER and a properly executed copy is mailed to the ENGINEER with a notice to proceed (NTP). If a NTP is not issued within sixty (60) days commencing from the last date of execution of this CONTRACT by the OWNER and the ENGINEER, then this CONTRACT shall be NULL AND VOID, the OWNER will not be obligated to any payment to the ENGINEER and the ENGINEER will not be obligated to perform any work under said CONTRACT.

PAYMENT SUMMARY

Engineering Design Services - LUMP SUM AMOUNT OF

\$473,499.00

TOTAL CONTRACT AMOUNT:

\$473,499.00

<u>ARTICLE 8 - GENERAL PAYMENT PROCEDURE</u>

8.1 INVOICES

- 8.1.1 The ENGINEER shall submit monthly invoices to the Administrative Officer in the Engineering Department, for the basic services described under Articles 2 and 4 for the design of the PROJECT. Invoices must include the City of Huntsville project name and number, dates of services, contract amount, previous billings and current billing. Along with each invoice, the ENGINEER must submit a consultant progress report known as Attachment 6. No payment will be made without the consultant progress report completed and attached. Monthly progress reports shall be submitted monthly even if no request for payment is made. If services under Article 4 are included in the invoice for additional services not included under the lump sum provisions, or services billed as time and material, the classification and hours of such persons rendering the services shall be attached to the invoice.
- 8.1.2 The signature of the ENGINEER on the invoice shall constitute the ENGINEER's representation to the OWNER that the services indicated in the invoice have progressed to the level indicated, have been properly and timely performed as required herein, that the reimbursable expenses included in the invoice have been reasonably incurred, that all obligations of the ENGINEER covered by prior invoices have been paid in full, and that, to the best of the ENGINEER's knowledge, information and informed belief, the amount requested is currently due and owing, there being no reason known to the ENGINEER the payment of any portion thereof should be withheld. Submission of the ENGINEER's invoice for final payment and reimbursement shall further constitute the ENGINEER's representation to the OWNER that, upon receipt from the OWNER of the amount invoiced, all obligations of the ENGINEER to others, including its consultants, incurred in connection with the PROJECT, have been paid in full. ENGINEER must designate on Attachment 6—

<u>Progress Report</u> in the appropriate space provided that such action has been completed.

8.2 TIME FOR PAYMENT

The OWNER shall make payment for services in Articles 2 and 4 within 60 days of receipt of valid invoice.

8.3 OWNER'S RIGHT TO WITHHOLD PAYMENT

In the event the OWNER becomes credibly informed that any representations of the ENGINEER, provided pursuant to Article 8.1.2, are wholly or partially inaccurate, the OWNER may withhold payment of sums then or in the future otherwise due to the ENGINEER until the inaccuracy, and the cause thereof, is corrected to the OWNER's reasonable satisfaction. Additionally, failure by the ENGINEER to supply substantiating records shall be reason to exclude related costs from the amounts which might otherwise be payable by the OWNER to the ENGINEER.

8.4 REIMBURSABLE EXPENSES

- 8.4.1 In addition to the requirements set forth in 8.1 above, invoices for reimbursable expenses shall include such documentation as the OWNER may require. Reasonable expenses are limited to the following expenses:
 - (a) Transportation outside the immediate Huntsville area (50 mile radius) approved in advance by the OWNER in writing and incurred in connection with the PROJECT; (Per Department of Treasury, Internal Revenue Service Publication 1542, Per Diem Rates, for travel within the continental United States). Refer to website: www.irs.gov/pub/irs-pdf/p1542.pdf for more information.
 - (b) Charges for long-distance communications:
 - (c) Fees paid for securing approval of authorities having jurisdiction over the PROJECT,
 - (d) Actual costs of reproduction for items in excess of those included in the required services:
 - (e) Postage and handling charges incurred for drawings, specifications and other documents.
- 8.4.2 The ENGINEER shall set forth with particularity on its invoice the nature and cost of the expense item being billed, and attach to its invoice the written authorization, if any, required for such item; and shall bill expenses at actual cost or prevailing rate and without the addition of administrative charge, any multiple or surcharge.

8.5 W-9 TAXPAYER FORM

All ENGINEERING FIRMS are required to submit a Federal Tax Form W-9 to City of Huntsville at the time a contract is awarded. No payments of invoices can be made until this W-9 Tax Form has been properly submitted. A copy of the W-9 Tax Form can be requested from the OWNER or at the following website: www.irs.ustreas.gov/pub/irs-pdf/fw9.pdf.

ARTICLE 9 - GENERAL CONSIDERATIONS

9.1 GENERAL

OWNER and ENGINEER agree that the following sections and provisions shall apply to the work to be performed under this Agreement and that such provisions shall supersede any conflicting provisions of this Agreement.

9.2 SUB-CONTRACTED SPECIALIZED SERVICES

The ENGINEER may sub-contract specialized services required of the PROJECT to competent and experienced sub-consultants approved by the OWNER in writing. As a prime professional, the ENGINEER shall act as OWNER's representative for contracting, directing, and managing the services of sub-consultants. The OWNER shall have the right to reject any consultant provided that the OWNER raises a timely objection. At the time of the execution of this Agreement, the parties anticipate that the consultants listed in Attachment "7" hereto will be retained by the ENGINEER to provide services with respect to the PROJECT. Expenses payable to the ENGINEER for subcontracted services are limited to no more than 5% of the cost of the subcontracted services

9.3 PEER REVIEW

The OWNER reserves the right to conduct, at the OWNER's expense, peer review of designs and drawings prepared by the ENGINEER and/or sub-consultant(s) for the PROJECT. The ENGINEER and sub-consultant(s) agree that knowledge and consent to review of their work by other engineers of the OWNER's choosing is hereby given in accordance with the ADMINISTRATIVE CODE (RULES AND REGULATIONS) of the Alabama State Board of Licensure for Professional Engineers and Land Surveyors, Chapter 330-X-14-.06(a) (13) effective January 2008 and as may be amended now or in the future pertaining to the Code of Ethics for review of the work of another engineer.

9.4 CLARIFICATION OF WORK

If reviewing agencies raise questions regarding the work of ENGINEER, OWNER will participate in such meetings as deemed necessary to explain and clarify this work.

9.5 CANCELLATION OF WORK

This Agreement may be canceled by either party in the event of default or violation of any of the provisions of this Agreement by the other party, by written notice delivered to the address of record by registered mail giving ten (10) days advance notice of the intention to cancel. In the event of cancellation of this Agreement, ENGINEER shall be paid for all work performed to date of cancellation, less any loss, damage, or liability incurred by reason of default of ENGINEER and all records, data, parameters, design calculations and other information collected or obtained in the performance of this Agreement shall be delivered to OWNER.

9.6 CHANGES

- 9.6.1 The OWNER may, at any time by written order, make changes within the general scope of the Agreement in the services to be provided. If such changes cause an increase or decrease in ENGINEER's cost of, or time required for performance of any services, whether or not changed by any order, an equitable adjustment shall be made and the Agreement shall be modified in writing accordingly. Upon notification of change, ENGINEER must assert any claim of ENGINEER for adjustment in writing within 30 days from the date of receipt unless OWNER grants a further period of time.
- 9.6.2 If findings in any phase of this PROJECT significantly alter the scope of work for subsequent phases, or if regulations are changed resulting in a scope of work change for any phase, engineering fees set forth in Article 7 may be renegotiated by the OWNER and ENGINEER.

9.7 ENGINEER'S RECORDS

Documentation accurately reflecting services performed and the time expended by the ENGINEER and his personnel and records of reimbursable expenses shall be prepared concurrently with the performance of the services and shall be maintained by the ENGINEER. The ENGINEER shall maintain record copies of all written communications, and any memoranda of verbal communications related to the PROJECT. All such records and documentation shall be maintained for a minimum of five (5) years after the PROJECT date of final completion or for any longer period of time as may be required by law or good practice. If the ENGINEER receives notification of a dispute or of pending or commencement of litigation during this five-year period, the ENGINEER shall continue to maintain all PROJECT records until final resolution of the dispute or litigation. The ENGINEER shall make such records and documentation available to the OWNER upon notice and shall allow the authorized representative(s) of the OWNER to inspect, examine, review and copy the ENGINEER's records at the OWNER's reasonable expense.

9.8 USE AND OWNERSHIP OF DOCUMENTS

All rights of ownership, copyrights, construction documents, including all drawings, specifications and other documents, electronic media, computer source code, or things prepared by or on behalf of the ENGINEER for the PROJECT are hereby transferred to the OWNER and shall be the sole property of the OWNER and are free of any retention rights of the ENGINEER. The ENGINEER hereby grants to the OWNER an unconditional right to use or to refer to, for any purpose whatsoever, the construction documents and any other documents or electronic media, computer source code prepared by or on behalf of the ENGINEER for the PROJECT, free of any copyright claims, trade secrets or other proprietary rights with respect to such documents. The ENGINEER shall be permitted to retain copies thereof for its records. The ENGINEER's documents and other work products are not intended or represented to be suitable for re-use by OWNER or others on extensions of the PROJECT or on any other PROJECT. Any re-use without specific written verification or adaptation by ENGINEER will be at OWNER's sole risk and without liability or legal exposure to ENGINEER, and OWNER shall indemnify and hold harmless ENGINEER from all claims, damages, losses and expenses including attorneys' fees arising out of, or resulting from. such reuse by the OWNER; provided however, that this agreement to indemnify and save harmless shall not apply to any reuse of documents retained by, or through, the ENGINEER.

9.9 ESTIMATE OF CONSTRUCTION COST

Since ENGINEER has no control over the construction cost of labor, materials, or equipment, or over the construction contractor(s) methods of determining prices, or over competitive bidding or market conditions, his opinion of probable PROJECT cost or construction cost provided for herein are to be made on the basis of his experience and qualifications and represent his best judgment as a design professional familiar with the construction industry; but, ENGINEER cannot and does not guarantee that proposals, bids or construction costs will not vary from opinions of probable cost prepared by him. If OWNER wishes greater assurance as to the construction cost, he will employ an independent cost estimator.

9.10 TERMINATION FOR CAUSE

This Agreement may be terminated by either party upon seven (7) days written notice to the other should such other party fail substantially to perform in accordance with its material terms through no fault of the party initiating the termination.

9.11 TERMINATION BY THE OWNER WITHOUT CAUSE

The OWNER may terminate this Agreement without cause upon seven (7) days' written notice to the ENGINEER. In the event of such a termination without cause, the ENGINEER shall be compensated for all services performed prior to termination, together with Reimbursable Expenses incurred. In such event, the ENGINEER shall promptly submit to the OWNER its invoice for final payment and reimbursement which invoice shall comply with the provisions of Paragraph 8.1.

ARTICLE 10 - INDEMNITY AND INSURANCE

10.1 INSURANCE

The ENGINEER shall carry insurance of the following kinds and amounts in addition to any other forms of insurance or bonds required under the terms of the contract specifications. The ENGINEER shall procure and maintain for the duration of the job until final acceptance by the OWNER, or as later indicated, insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the ENGINEER, his agents, representatives, employees or subcontractor.

10.2 MINIMUM SCOPE OF INSURANCE:

A. General Liability:

Insurance shall be written on an occurrence basis. Claims-made coverage will be accepted only on an exception basis after the OWNER's approval. The same insurance company should write General Liability Coverage and OWNERs ENGINEERs Protective Insurance.

B. Commercial General Liability

Products and Completed Operations Contractual Personal Injury Explosion, Collapse and Underground Broad Form Property Damage

C. Professional Liability:

Insurance may be written on a "claims-made" basis, providing coverage for negligent acts, errors or omissions in the performance of professional services. Coverage shall be maintained for a discovery and reporting period of no less than five (5) years after completion of the professional services and Certificates of Insurance shall be submitted to the OWNER on a yearly basis during this time frame. Coverage shall be no less comprehensive than that which is carried by at least 25% of the registered engineers or engineering firms contracting in the State of Alabama. Such coverage shall be carried on a continuous basis including prior acts coverage to cover the subject PROJECT. The professional liability insurance shall contain contractual liability coverage.

D. Automobile Liability:

Business Automobile Liability providing coverage for all owned, hired and non-owned autos. Coverage for loading and unloading shall be provided under either automobile liability or general liability policy forms.

E. Workers' Compensation Insurance:

Statutory protection against bodily injury, sickness or disease or death sustained by employee in the scope of employment. Protection shall be provided by a commercial insurance company or a recognized self-insurance fund authorized before the State of Alabama Industrial Board of Relations. "Waivers of Subrogation" in favor of the OWNER shall be endorsed to Workers' Compensation Insurance.

F. Employers Liability Insurance:

Covering common law claims of injured employees made in lieu of or in addition to a worker's compensation claim.

10.3 MINIMUM LIMITS OF INSURANCE:

A. General Liability:

Commercial General Liability on an "occurrence form" for bodily injury and property damage:

\$ 2,000,000 General Aggregate Limit

\$2,000,000 Products - Completed Operations Aggregate

\$ 1,000,000 Personal & Advertising Injury

\$1,000,000 Each Occurrence

B. Professional Liability:

Insurance may be made on a "claims-made" basis:

\$ 500,000 Per Claim - Land Surveyors \$ 1,000,000 Per Claim - Other Professionals

C. Automobile Liability:

\$ 1,000,000 Combined Single Limit per accident for bodily injury and property damage.

D. Workers' Compensation:

As required by the State of Alabama Statute

E. Employers Liability:

\$ 1,000,000 Bodily Injury by Accident or Disease

\$ 1,000,000 Policy Limit by Disease

10.4 OTHER INSURANCE PROVISIONS:

The OWNER is hereby authorized to adjust the requirements set forth in this document in the event it is determined that such adjustment is in the OWNER's best interest. If the insurance requirements are not adjusted by the OWNER prior to the OWNER's release of specifications with regard to the PROJECT in question, then the minimum limits shall apply. The City of Huntsville/OWNER shall be named on the policies of general liability and automobile insurance and on the certificate of insurance as an Additional Insured. Additional Insured status on the Commercial General Liability policy shall be through ISO Additional Endorsement CG 20 10 11 85 or equivalent and coverage shall be afforded on a primary basis.

The policies are to contain, or be endorsed to contain, the following provisions:

A. All Coverage:

The ENGINEER is responsible to pay all deductibles. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be suspended, voided, canceled, non-renewal or materially changed by either party, reduced in coverage or in limits except after thirty (30) days' prior written notice by certified mail, return receipt requested, has been given to the OWNER. Cancellation of coverage for non-payment of premium will require ten (10) days written notice to the OWNER.

10.5 ACCEPTABILITY OF INSURERS:

Insurance is to be placed with insurers authorized by the State of Alabama with an A. M. Best rating of A-V or better.

10.6 VERIFICATION OF COVERAGE:

The OWNER shall be indicated as a Certificate Holder and the ENGINEER shall furnish the OWNER with Certificates of Insurance reflecting the coverage required by this document. The A. M. Best rating and deductibles, if applicable, shall be indicated on the Certificate of Insurance for each insurance policy. The certificates for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf and must be an original signature. Certificates signed using digital signatures will not be accepted. All certificates are to be received and approved by the OWNER before work commences. The OWNER reserves the right to require complete, certified copies of all required insurance policies at any time.

10.7 CONSULTANTS AND/OR SUBCONTRACTORS WORKING FOR THE ENGINEER:

The ENGINEER shall furnish separate certificates and/or endorsements for each subcontractor and/or consultant showing insurance of the same type or types and to the extent of the coverage set forth in this Article 10.

10.8 HOLD HARMLESS AGREEMENT:

A. Other Than Professional Liability Exposures:

The ENGINEER, to the fullest extent permitted by law, shall indemnify and hold harmless the OWNER, its elected and appointed officials, employees, agents, and representatives against all claims, damages, losses and expenses, including, but not limited to, attorney's fees, arising out of or resulting from the performance of the

work, provided that any such claim, damage, loss or expense (1) is attributable to personal injury, including bodily injury sickness, disease or death, or to injury to or destruction of tangible property, including loss of use resulting there from, and (2) is caused by any negligent act or omission of the ENGINEER or any of their consultants, or anyone directly or indirectly employed by them or anyone for whose acts they are legally liable. Such obligation should not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity, which would otherwise exist as to any party or person, described in this paragraph.

B. Professional Liability:

The ENGINEER agrees, to the fullest extent permitted by law, to defend, protect, indemnify and hold harmless the OWNER, its elected and appointed officials, officers, directors, employees, agents, and representatives from and against any and all liability, claims, demands, damages, loss, costs, fees, and expenses (including actual fees and expenses of attorneys, expert witnesses, and other consultants) actually or allegedly arising out of, or resulting from, the professional services of the ENGINEER or the ENGINEER's consultants, subcontractors, or suppliers, including. without limitation, any breach of contract or any negligent acts, errors, or omissions in the performance of the professional services provided pursuant to or as a result of this Agreement. Neither, the OWNER nor the ENGINEER shall be obligated to indemnify the other party in any manner whatsoever for the other parties own negligence. The OWNER agrees, to the fullest extent permitted by law, to indemnify and hold harmless the ENGINEER, its officers, directors, employees and sub consultants against all damages, liabilities or cost including reasonable attorney's fees and defense cost, to the extent caused by the OWNER's negligence acts in connection with the PROJECT and acts of its contractors, subcontractors, or consultants or anyone for whom the client is legally liable.

To the fullest extent permitted by law, the ENGINEER shall defend, protect, indemnify, and hold harmless the OWNER, its elected and appointed officials, officers, directors, employees, agents, and representatives from and against any and all liability, claims, demands, damages, loss, costs, fees and expenses (including actual fees and expenses of attorneys, expert witnesses, and other consultants) for infringement of patent rights, copyrights, or other intellectual property rights, except with respect to designs, processes or products of a particular manufacturer expressly required by the OWNER in writing. If the ENGINEER has reason to believe the use of a required design, process or product is an infringement of a patent, the ENGINEER shall be responsible for such loss unless such information is promptly given to the OWNER.

ARTICLE 11- MISCELLANEOUS PROVISIONS

11.1 GOVERNING LAW

This Agreement shall be governed by the law of the State of Alabama.

11.2 INTENT AND INTERPRETATION

11.2.1 The intent of this contract is to require complete, correct and timely execution of the work. Any work that may be required, implied or inferred by the contract documents, or any one or more of them, as necessary to produce the intended result shall be provided by the ENGINEER.

- 11.2.2 This contract is intended to be an integral whole and shall be interpreted as internally consistent. What is required by any one contract document shall be considered as required by the contract.
- 11.2.3 When a word, term or phrase is used in this contract, it shall be interpreted or construed, first, as defined herein; second, if not defined, according to its generally accepted meaning in the engineering industry; and third, if there is no generally accepted meaning in the engineering industry, according to its common and customary usage.
- 11.2.4 The words "include", "includes", or "including", as used in this contract, shall be deemed to be followed by the phrase, "without limitation".
- 11.2.5 The specification herein of any act, failure, refusal, omission, event, occurrence or condition as constituting a material breach of this contract shall not imply that any other, non-specified act, failure, refusal, omission, event, occurrence or condition shall be deemed not to constitute a material breach of this contract.
- 11.2.6 Words or terms used as nouns in this contract shall be inclusive of their singular and plural forms, unless the context of their usage clearly requires a contrary meaning.

11.3 TIME IS OF THE ESSENCE

Time limitations contained herein, or provided for hereby, are of the essence of this Agreement. The ENGINEER understands and acknowledges that time is of the essence in completion of the PROJECT and that the OWNER will incur damages if the PROJECT is not completed on time.

11.4 SUCCESSORS AND ASSIGNS

The ENGINEER shall not assign its rights hereunder, excepting its right to payment, nor shall it delegate any of its duties hereunder without the written consent of the OWNER. Subject to the provisions of the immediately preceding sentence, the OWNER and the ENGINEER, respectively, bind themselves, their successors, assigns and legal representatives to the other party to this Agreement and to the successors, assigns and legal representatives of such other party with respect to all covenants of this Agreement. Nothing herein shall be construed as creating any personal liability on the part of any officer or agent of any public body that may be party hereof, nor shall it be construed as giving any rights or benefits hereunder to anyone other than OWNER and ENGINEER.

11.5 NO THIRD-PARTY BENEFICIARIES

This Agreement shall inure solely to the benefit of the parties hereto and their successors and assigns. Nothing contained herein is intended to or shall create a contractual relationship with, or any rights in favor of, or any cause of action in favor or, any third party, against the OWNER or the ENGINEER.

11.6 INTELLECTUAL PROPERTY/ CONFIDENTIALITY

All information, documents, and electronic media, computer source code furnished by the OWNER to the ENGINEER belong to the OWNER, are considered proprietary and confidential, unless otherwise indicated by the OWNER, and are furnished solely for use on the OWNER's PROJECT. Such information, documents, and electronic media, computer source code shall be kept confidential by the ENGINEER, shall only be released as necessary to meet official regulatory requirements in connection with the PROJECT, and

shall not be used by the ENGINEER on any other PROJECT or in connection with any other person or entity, unless disclosure or use thereof in connection with any matter other than services rendered to the OWNER hereunder is specifically authorized in writing by the OWNER in advance.

11.7 SUBCONTRACT REQUIREMENTS

The ENGINEER shall include the terms and conditions of this Agreement in every subcontract or agreement with a consultant for this PROJECT so that these terms and conditions shall be binding upon each subcontractor or consultant. The subcontractor(s)/consultant(s) will maintain all licenses and certifications to practice engineering by all public entities having jurisdiction over the PROJECT. The subcontractor (s)/consultant(s) further represent to the OWNER that the subcontractor(s)/consultant(s) will maintain all necessary licenses, certifications, permits or other authorizations necessary for the PROJECT until the remaining duties hereunder have been satisfied.

11.8 NOTICES

Unless otherwise provided, all notices shall be in writing and considered duly given if the original is hand delivered; if delivered by facsimile to 256-427-5325, or is sent by U.S. Mail, postage prepaid to City of Huntsville Engineering, P. O. Box 308 (35804), 320 Fountain Circle (35801), Huntsville, AL. All notices shall be given to the addresses set forth above. Notices, hand delivered or delivered by facsimile, shall be deemed given the next business day following the date of delivery. Notices given by U.S. Mail shall be deemed given as of the second business day following the date of posting.

11.9 STRICT COMPLIANCE

No failure of the OWNER to insist upon strict compliance by the ENGINEER with any provision of this Contract for Professional Services shall operate to release, waive, discharge, modify, change or affect any of the ENGINEER's obligations.

11.10 WAIVER

No provision of this Agreement may be waived except by written agreement of the parties. A waiver of any provision on one occasion shall not be deemed a waiver of that provision on any subsequent occasion, unless specifically stated in writing. A waiver of any provision shall not affect or alter the remaining provisions of this Agreement.

11.11 SEVERABILITY

If any provision of this Agreement, or the application thereof, is determined to be invalid or unenforceable, the remainder of that provision and all other provisions of this Agreement shall remain valid and enforceable.

11.12 ETHICS

The ENGINEER shall not offer or accept any bribes or kickbacks from or to any manufacturer, consultant, trade contractor, subcontractor, supplier or any other individual or entity in connection with the PROJECT. The ENGINEER shall not confer on any governmental, public or quasi-public official having any authority or influence over the PROJECT any payment, loan, subscription, advance, deposit of money, services or anything of more than nominal value, present or promised. The ENGINEER shall not, without the express written permission of the OWNER, engage or recommend to the OWNER engagement of any consultant, trade contractor, subcontractor, or supplier to provide services on behalf of the ENGINEER, OWNER or PROJECT in which the ENGINEER has a

direct or indirect proprietary or other pecuniary interest; or call for the use of or by exclusion require or recommend the use of products, materials, equipment, systems, processes or procedures in which the ENGINEER or in which any consultant, trade contractor, subcontractor, or supplier of the ENGINEER has a direct or indirect proprietary or other pecuniary interest. Without prior notification and written approval of the OWNER, the ENGINEER and the ENGINEER'S subconsultants shall not offer services to the OWNER'S contractor.

11.13 ALABAMA IMMIGRATION ACT

Compliance with the requirements of the (Beason-Hammon Alabama Taxpayer and Citizen Protection Act, Act No. 2012-535, Code of Alabama (1975) § 31-13-1 through 31-13-30, commonly referred to as the Alabama Immigration Law, is required for City of Huntsville, Alabama contracts as a condition of the contract performance. As a condition of this agreement, pursuant to Act No. 2012-535, Code of Alabama (1975) § 31-13-1 through 31-13-30, compliance with this requirement shall be done by the ENGINEER by completion of the "City of Huntsville, Alabama Report of Ownership Form" listed as Attachment 2 in this agreement and returning the completed form to the Engineering Division either by fax to 256/427-5325 to the attention of Mary Hollingsworth, hand delivery or mail to: City of Huntsville Engineering Division, P. O. Box 308, Huntsville, AL 35804, or via email to Mary.Hollingsworth@huntsvilleal.gov. The form shall be returned at the time of the signing of the contract by the ENGINEER and must be submitted before the contract is presented to the City of Huntsville City Council for approval.

11.14 E-VERIFY - NOTICE

The ENGINEER shall enroll, and shall remain enrolled for the duration of this contract, in a designated employment eligibility verification system (E-Verify) in accordance with the City of Huntsville Ordinance 09-735. If the ENGINEER uses subcontractors in connection with the performance of work herein and the value of the subcontract exceeds \$3,000, the subcontractor shall also comply with this ordinance. The ENGINEER shall include specific written notice in all requests for bids or proposals prepared by the ENGINEER that contractors and any subcontractors are required to enroll in the E-verify program as required by the ordinance. Failure to comply with the requirements of the ordinance shall be a material breach of the contract.

As a condition of this agreement, pursuant to 8 U.S.C.§1324a, Garver, L.L.C., hereby certifies that it has not knowingly employed, recruited, referred for a fee, or contracted with an unauthorized alien, with respect to employment in the United States. Further, Garver, L.L.C. hereby certifies that it has enrolled in the City of Huntsville designated employment eligibility verification system in accordance with Ordinance 09-735 and will maintain enrollment throughout the term of this contract.

Garver, L.L.C (Company)

(Authorized Representative)

11.15 ENTIRE AGREEMENT

This Agreement represents the entire agreement between the OWNER and the ENGINEER and supersedes all prior communications, negotiations, representations or agreements, either written or oral. This agreement may be amended only by written instrument signed by both OWNER and ENGINEER.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement the day and year first above written.

OWNER: CITY OF HUNTSVILLE	ENGINEER: GARVER, L.L/C.
BY: Tommy Battle	BY: Scott C. Leach
TITLE: Mayor	TITLE: Transportation Team Leader
ATTEST:	ATTEST: Lanka Carter
Given under my hand thisday	Given under my hand this 24th day
Of,2012.	of October ,2012.
Notary Public	Notary Public & Hollingswith
My commission expires	My commission expires 3 28 2015

ATTACHMENT 1-SCOPE OF SERVICES

(Refer to Letter dated September 11, 2012, from Scott C. Leach to Shane Davis and attachments).



5125A Research Drive Huntsville, AL 35805

TEL 256.534.5512 FAX 256.534.5544

www.GarverUSA.com

September 11, 2012

Mr. Shane A. Davis, P.E. Director Huntsville Urban Development & Engineering 320 Fountain Circle Huntsville, AL 35801

RE:

Final Design Services Proposal Submittal for Project No. TBA Greenbrier Parkway from I-565 to North of Old Highway 20 In the City of Huntsville, Limestone County, AL

Mr. Davis:

Thank you for allowing Garver the opportunity to continue providing professional services for the City of Huntsville. We appreciate your confidence in allowing us to be a part of this very important project.

Submitted herewith are two (2) copies of our Man-Day Estimate and Fee Proposal along with a detailed scope of services for the additional data collection for Field Surveying to supplement the Aerial Survey already performed; preparation of the Right-of-Way Map, Tract Sketches and Acquisition Deed Descriptions, and Final Design of the Roadway Contract Plans for this project. I have also included a vicinity maps illustrating the project's location and the project's limits. Also included is a copy of Garver's 2012 hourly fee schedule with names and classifications of employees anticipated to work on the project. Our fee schedule is valid for the duration of this phase of the project. Our man-day estimate and fee proposal has been prepared for a Lump-Sum contract with the City. The man-days and fee amounts are based on the level of effort anticipated for each phase of the proposed project scope services for which we are responsible.

We will begin work within five (5) days of our contract being approved by City Council. The contract duration for us to complete the scope of services for this project will be 12 months from the date the City approves our contract and we receive a written Notice to Proceed.

If you have questions, comments, or need any additional information regarding this project or the items submitted, please let me know at your earliest convenience. Once again, thank you for selecting Garver to provide the City with professional engineering services required to complete this important project.

Sincerely,

Scott C. Leach, PE Sr. Project Manager

CC:

Mr. Ron Adams, PE Mrs. Kathy Martin, PE Project File

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Project No.	TBA			
Project Name	Greenbrier Parkway Phase I Final Design			
Description	Roadway on New Location from North of I-565 to North of Old Highway 20			
Scope of Work	Field Surveying, Right-of-Way, Roadway Plans, and Geotechnical			
Project Length	2.0 Miles			
C.O.H. Project Engineer	Kathy Martin			
Engineering Consultant	Garver, LLC			

GRAND TOTAL OF FEE PROPOSAL

		Out-of-pocket		
	Labor Cost	Expenses	Fee	
Corridor Study	\$0.00	\$0.00	\$0.00	
Field Surveys	\$33,560.00	\$1,209.00	\$34,769.00	
Preliminary Roadway Plans	\$0.00	\$0.00	\$0.00	
Preliminary Bridge Plans	\$0.00	\$0.00	\$0.00	
Right-of-Way Map, Tract Sketches and Deeds	\$34,552.00	\$1,020.00	\$35,572.00	
Roadway Plans	\$399,273.31	\$3,885.00	\$403,158.31	
Bridge Plans	\$0.00	\$0.00	\$0.00	
Drainage Plans	\$0.00	\$0.00	\$0.00	
Sanitary Sewer Plans	\$0.00	\$0.00	\$0.00	
Environmental	\$0.00	\$0.00	\$0.00	
GRA	ND TOTAL FEE		\$473,499	

LABOR RATES	Effective Time Period	31-Dec-13
Classification Hourly Rate		Assigned Personnel
Project Engineer	\$166.00	Scott C. Leach
Environmental Scientist	\$90.00	Ryan Mountain & Jeremy Spires
Design Engineer	\$116.00	Crenshaw, Dinges, Spayd, Staton, & Turner
Engineer Tech. / CADD	\$85.00	Kendall Troesch & Mike Harp
Clerical	\$45.00	Peggy Bridgeman & Elizabeth Aaron
PLS	\$105.00	Wade Carpenter
Survey Crew	\$186.00	Storey, Hood, Few, Hainline, Gargis, Byrd

Signed

19-Oct-12 Date

Transportation Team Leader
Position/Title

Scope of Services for Project #: TBA Greenbrier Parkway In the City of Huntsville, Limestone County, AL

FIELD SURVEYING SCOPE OF SERVICES:

The below described surveying services will be provided by Garver (Consultant). Proposed tasks and corresponding man-day estimates are based on level of effort expected to perform the following tasks:

- 1. CONSULTANT will determine and contact all adjacent property owners throughout the length of the project prior to beginning any survey work. The CONSULTANT will make every reasonable effort to contact the property owners verbally and follow-up the contact with a confirmation letter documenting the contact. The CONSULTANT will use a standard letter format furnished by the CITY. CONSULTANT will furnish copies of the property owner contact letters to the CITY.
- 2. A basic control survey will be performed by the CONSULTANT to locate and identify horizontal and vertical control points which provide control for the project and will be used for subsequent surveys. All surveying and mapping will be performed in accordance with the FHWA "Surveying and Mapping Manual" dated November, 1985. The basic control survey will be performed to at least horizontal geodetic Third Order, Class II and Vertical geodetic Third Order classification and be tied to monumented points with known State Plane coordinates and to CITY furnished GPS points where available. The basic control survey is to consist of P.I. to P.I. traverse with distances and angles measured. The survey will coincide with the proposed road centerline or be offset at a constant distance approved by the CITY. The CONSULTANT will verify data supplied by CITY or any other source and be responsible for accuracy of work developed from such data. Project benchmarks will be monumented at intervals not to exceed 1,500 feet along the project corridor and will be established to U.S.G.S. datum. The CONSULTANT will notify the CITY in writing when the basic control survey is complete. An on-site inspection of the survey line will be conducted by the CITY and CONSULTANT to determine workability and feasibility of the survey line prior to proceeding with the alignment surveys, and any corrections required by the CITY will be performed by the CONSULTANT. The CONSULTANT shall conduct an on-site inspection to verify the Basic Control Survey is complete and shall identify – with assistance from the CITY – the features, project limits, and data necessary to be gathered during the Field Survey for purposes of Design. The CONSULTANT will run closure of the basic control survey to verify the traverse qualifies for the specified classification accuracy. If closure specification requirements are not

- met, sufficient additional surveying will be performed by the CONSULTANT to meet specification requirements. The CONSULTANT will establish the proposed project centerline stationing. Profiles for the project centerline will be obtained at 50 foot intervals and significant breaks in the ground line.
- 3. Topographic data collected from the Aerial Survey conducted earlier this year will be provided by the CITY. Supplemental data gathering is anticipated in order to obtain drainage structure invert elevations and any other topographic data that may be missing from the Aerial Survey provided by the CITY. Data will be obtained by CONSULTANT through X, Y, and Z coordinate of each point necessary to define additional topography, septic tanks, other underground tanks, cover and culture. The project centerline will be used as the baseline for determining station, offset and elevation of each point. The CONSULTANT will provide a completed field map for review by the CITY. The CONSULTANT will run traverses on paved cross roads a distance of 500 feet from the project centerline. All topo obtained by the CONSULTANT will be referenced to the traverse baselines. The survey for the DTM will be to a level sufficient to extract cross sections on 50 foot intervals, plot construction limits and determine quantities. The DTM provided by the CITY will be utilized to extract cross sections and other information to determine preliminary quantities. Since the Aerial Survey data provided was performed by others, the CONSULTANT makes no guarantee regarding the accuracy of the information provided.
- 4. The CONSULTANT will perform supplemental ground control surveys as necessary to properly identify existing utilities throughout the project limits. The following utility items will be obtained and furnished by the CONSULTANT to the CITY; the CITY shall assist CONSULTANT as needed following proof of reasonable effort by CONSULTANT to obtain such information. Utility ownership and address of owner and obtain location and elevation of all visible and sanitary sewer manholes, inlets, and inverts. Size and type of material will also be obtained. The location and elevation of visible evidence of gas, water or other pipelines and utility facilities above and underground including but not limited to valves, hydrants, meters, vents, pump houses, etc. Size and type of valves and pipe will be show, based on information obtained from utility companies. Location of telephone, electric and cable lines, both aerial and underground.

Project-Related Surveying Information to be Provided by the City of Huntsville

The City will provide all available Aerial Survey and other mapping, monuments, aerial images, GPS points, and previous surveys performed within the project vicinity as soon as possible.

2:28 PM

Project No.	TBA
Project Name	Greenbrier Parkway Phase I Final Design
Description	Roadway on New Location from North of I-565 to Hsv-Browns Ferry Road
Scope of Work	Field Surveying, Right-of-Way, and Roadway Plans
Project Length	2.0 Miles
C.O.H. Project Engineer	Kathy Martin
Engineering Consultant	Garver, LLC

		Survey	Engineer Tech. /
FIELD SURVEY	PLS	Crew	CADD
Based on a 3 Man Crew			
Task	ESTIMA	ATED MAN	N-DAYS
Contact Property Owners	0.25	MANAGE OF	0.50
Perform Basic Control Survey	0.25	1.50	1.00
Obtain Topographic Data	0.50	4.00	2.00
Define Drainage Areas/Prepare Schematic Drainage Map		COLUMN TO SERVICE	
Identify/Locate Utilities	0.25	1.50	1.00
Tie to Required Property Corners	1.00	4.00	2.00
Obtain Copies of Latest Deeds	0.25		1.00
Set & Reference Pls, PCs, POTs, POCs, & other critical points	0.50	2.00	1.50
Prepare Detailed Topographical/Field Map	1.00		2.00
TOTALS	4.00	13.00	11.00

2:28 PM

		The second second second		
Project No. TBA				200.000
Project Name Greenbrie	er Parkway Phase I Final Design	า		
	on New Location from North of		Browns	Ferry Road
	veying, Right-of-Way, and Road			
Project Length 2.0 Miles	3 3.			
C.O.H. Project Engineer Kathy Ma	rtin			
Engineering Consultant Garver, L				
2. gineering conductant dayon, E.	Fee Proposal (Fiel	d Survey)	_	
	r ee i roposar (i lei	u Suivey)		
PERSONNEL COST				
PERSONNEL COST		Daily Rate		
	Man-days	@ 8hrs/day		
Project Engineer		\$ 1,328.00	\$	2,656.00
PLŚ	4.00		\$	3,360.00
Survey Crew	13.00	\$ 1,488.00	\$	19,344.00
Engineer Tech. / CADD	11.00	\$ 680.00	\$	7,480.00
Clerical	2.00		\$	720.00
		Sub-Total	\$	33,560.00
SUB-CONSULTANTS (attach man-day & f	ee FROM each sub-consultar	it; show total	_	each here)
			\$	
			\$	
			\$	-
			\$	
		1 2 2	\$	•
Subconsultant Administration Expense (5%)		1	\$	Districtions - W
Dubeonduitant Administration Expense (578)		Sub-Total	\$	
		Cub-i Ciai	Ψ	
	TC	TAL LABOR	\$	33,560.00
			_	00,000,00

Project No. TBA			75363W67	\$5.15T		17002773247
Project Name Greenbrier Parkw	ay Phase I Fi	nal Design				
Description Roadway on New	Location from	n North of	-565 to Hs	v-Browns F	err	y Road
Scope of Work Field Surveying, F	Right-of-Way,	==	1200			
Project Length 2.0 Miles						
C.O.H. Project Engineer Kathy Martin						
Engineering Consultant Garver, LLC						
Out-of-pocket E	xpenses (Field Su	rvey)	HR		
PRINTING / REPRODUCTION COST	15/01/2014/25/20					ne venille
Type of printing/reproduction	# of Sets	Sheets per Set	Total Sheets	Cost per Sheet		Total
Deeds (8.5" x 14")	3	120	360	\$ 0.15	\$	54.00
Field Books & Notes (8.5" x 11")	3	250	750	\$ 0.10	_	75.00
Topo, Utility, Property & Contour Maps (11"x17")	3	100	300	\$ 0.20	\$	60.00
Miscellaneous	(Sec. 12:45)	100	100	\$ 0.20	\$	20.00
	0	0	0	\$ -	\$	
	0	0	0	\$ -	\$	-
		Total Prin	ting/Repro	oduction C	\$	209.00
Communication Cost (telephone, fax, etc.)		SPARINE.		EHELIA DER	, Edi	Total
					\$	250.00
Postage Cost (overnight, stamps, etc.)		44.3457245			TO SE	Total
		10000		South State of the	\$	
					\$	
Other (provide description on next line)					\$	Total
Other (provide description on next line) Stakes, Hubs, Tacks, Rebar,	Flagging, etc.				\$	Total 750.00
		out-of-poc	ket Expen	ses		750.00
			ket Expen	ses	\$	

R.O.W. MAP, ACQUISITION DEEDS & TRACT SKETCHES SCOPE OF SERVICES:

The following right-of-way services will be provided by Garver (Consultant). The proposed tasks and corresponding man-day estimates are based on the effort anticipated to perform the following tasks:

TASK A:

The Consultant will coordinate with the City to ensure sufficient information is provided for the preparation of the Right-of-Way map based upon information obtained from records search at the Limestone County Courthouse. Copies of each parent tract deed description, subdivision plats, ownership records, Tax Maps, adjoining deeds, and other available information. Consultant will prepare a Right-of-Way Map that illustrates the parcels affected by the project with Before Acreage, Acreage Required, and After Taking Acreages for each parcel affected by project. The Right-of-Way Map will also illustrate Property Owners for each affected parcel, Deed Book & Page Number for each affected parcel, the roadway centerline and proposed major features of the roadway, proposed Right-of-Way, and the total acreage to be acquired from each parcel.

TASK B:

CONSULTANT will prepare individual Tract Sketches for each parcel affected by the project. Each Tract Sketch will contain a plot of the entire property of each affected tract to a suitable scale based on the size of the parent tract. Each tract sketch will illustrate Right-of-Way to be acquired and acreage. The tract sketches will also identify existing deed, property owner, before and after acreages, and roadway centerline with the station and offset of each Right-of-Way break. Bearings and distances of Right-of-Way acquisition lines will be illustrated on each Tract Sketch.

TASK C:

CONSULTANT will prepare acquisition descriptions for all properties that will be affected by an acquisition with this project. Each affected tract's acquisition description will include a metes and bounds description referencing a Point of Commencement, Point of Beginning, Total Acreage taken, and will be tied to roadway centerline. An acquisition description will be prepared for each parcel.

TASK D:

Consultant will stake the Right-of-Way/Acquired Parcels one time following the 60% Complete Review for City to view proposed Land Acquisitions required for the Project.

Project-Related Right-of-Way, Tract Sketches & Deeds Information to be Provided by City

The City will provide any available maps or other project related information that would be beneficial to the Consultant in preparing the Right-of-Way Map, Tract Sketches, and Acquisition Deed descriptions for the project as soon as possible.

Pro	ect	No.	TBA
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Project Name Greenbrier Parkway Phase I Final Design

Description Roadway on New Location from North of I-565 to Hsv-Browns Ferry Road

Scope of Work Field Surveying, Right-of-Way, and Roadway Plans

Project Length 2.0 Miles

C.O.H. Project Engineer Kathy Martin

Engineering Consultant Garver, LLC

Supporting Documentation for ROW Fee Proposal

Supporting Documentation for ROW Fee Proposal					
Date of Research	Parcel Tax ID #	# of Takings	Notes		
1/23/2012	17-08-34-0-000-001.000		ROW		
1/23/2012	17-08-33-0-000-001.001		ROW		
1/23/2012	17-08-33-0-000-002.000		ROW		
1/23/2012	17-08-33-0-000-001.000		ROW		
1/23/2012	17-08-28-0-000-026.000		ROW		
1/23/2012	17-08-28-0-000-015.000		ROW		
1/23/2012	17-08-28-0-000-013.000	1	ROW		
1/23/2012	17-08-28-0-000-014.000	1	ROW		
1/23/2012	17-08-28-0-000-011.000	1	ROW		
1/23/2012	17-08-28-0-000-011.003	1	ROW		
1/23/2012	17-08-28-0-000-011.002	1	ROW		
1/23/2012	17-08-29-0-000-001.000	1	ROW		
1/24/2012	17-04-20-0-000-005.002	1	ROW		
1/24/2012	17-04-20-0-000-005.001	1	ROW		
1/24/2012	17-05-21-0-000-003.022	1	ROW		
1/24/2012	17-05-21-0-000-003.000	1 0 1	ROW		
1/24/2012	17-05-21-0-000-003.021	1	TOTAL TAKE		
1/24/2012	17-05-21-0-000-003.016		ROW		
1/24/2012	17-05-21-0-000-003.019	1	ROW		
1/24/2012	17-05-21-0-000-003.015	1	ROW		
1/24/2012	17-05-21-0-000-003.018	1	ROW		
1/24/2012	17-05-21-0-000-003.014	1	ROW		
1/24/2012	TVA & Land Owner		ROW within the TVA Easement		
1/24/2012	Norfolk-Southern RR	1	Temporary Easement		
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Water Berger Williams					
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Project No.	TBA		
Project Name	Greenbrier Parkway Phas	se I Final Design	
Description	Roadway on New Location	n from North of I-	565 to Hsv-Browns Ferry Road
Scope of Work	Field Surveying, Right-of-	Way, and Roadw	ay Plans
Project Length	2.0 Miles		
C.O.H. Project Engineer			
Engineering Consultant			
Supporti	ng Documentation		
Date of Research	Parcel Tax ID #	# of Takings	Notes
		Her Maria Bay	
THE RESERVE OF THE PROPERTY OF			
		West Control	
	TO THE REST OF THE SECOND		
		The state of the s	
		William William	

Total Takings:

24

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Project No.	TBA
Project Name	Greenbrier Parkway Phase I Final Design
Description	Roadway on New Location from North of I-565 to Hsv-Browns Ferry Road
Scope of Work	Field Surveying, Right-of-Way, and Roadway Plans
Project Length	2.0 Miles
C.O.H. Project Engineer	Kathy Martin
Engineering Consultant	Garver, LLC
	I Conti

			Engineer
		Survey	Tech. /
ROW Map, Tract Sketches and Deeds	PLS	Crew	CADD
Estimated number of takings= 24	ESTIMA	ATED MAN	I-DAYS
Task A: Right-of-Way Map	2.00		4.00
Task B: Tract Sketches	4.00	N. 100 A. 100	8.00
Task C: Deeds	2.00		4.00
Task D: Right-of-Way/Acquired Parcel Staking	1.00	4.00	Andread and the Party of the Pa
	En 1253		
TOTALS	9.00	4.00	18.00

Note: A "Taking" is any separate piece of property acquired by the C.O.H. This includes parcels, drainage easements, construction easements, etc.

Project No. TBA					
Project Name Greenbrier Parkway Pha	se I Final Desi	gn			
Description Roadway on New Locati	ption Roadway on New Location from North of I-565 to Hsv-Browns Ferry Road				
Scope of Work Field Surveying, Right-of	f-Way, and Roa	adway Plans		1 3 3	
Project Length 2.0 Miles		1000-000-000-000-000-000-000-000-000-00			
C.O.H. Project Engineer Kathy Martin					
Engineering Consultant Garver, LLC					
Fee Proposal (RO	W Map. Trac	ct Sketches	& Deed	ds)	
PERSONNEL COST					
		Daily Rate			
	Man-days	@ 8hrs/day			
Project Engineer		\$ 1,328.00		6,640.00	
PLS	9.00			7,560.00	
Survey Crew		\$ 1,488.00	\$	5,952.00	
Engineer Tech. / CADD	18.00	The same of the sa	\$	12,240.00	
Clerical	6.00		\$	2,160.00	
		Sub-Total	\$	34,552.00	
SUB-CONSULTANTS (attach man-day & fee FROM ea	nch sub-consu	Itant; show to	otal fee fo	or each here)	
			\$		
			\$		
			\$		
Subconsultant Administration Expense (5%)			\$	-	
		Sub-Total	\$	•	
		,			
·	TO	TAL LABOR	\$	34,552.00	

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Dusings Min wms	7/1	ale III				
Project No. TBA				***************************************	_	
Project Name Greenbrier Parkwa						
Description Roadway on New				v-Browns F	err	y Road
Scope of Work Field Surveying, R	ight-of-Way,	and Road	way Plans			
Project Length 2.0 Miles						
C.O.H. Project Engineer Kathy Martin				7/8-27-		
Engineering Consultant Garver, LLC	*****					
Out-of-pocket Expenses (R	OW Map,	Tract Sk	etches 8	Deeds)		
PRINTING / REPRODUCTION COST			25/11/2012/2012	TY WEST	-	
		Sheets	Total	Cost per	1940	
Гуре of printing/reproduction	# of Sets	per Set	Sheets	Sheet		Total
Acquisition Sketches, Descriptions, etc (8.5"x14")	4	75	300	\$ 0.15	\$	45.00
Right-of-Way Roll Map (50 sq ft @ \$0.5/sq ft)	4	4	16	\$ 25.00	\$	400.00
Miscellaneous In-House Printing (Various Sizes)	1	50	50	\$ 1.00	\$	50.00
	0	0	0	\$ -	\$	-
	0	0	0	\$ -	\$	-
	0	0	0	\$ -	\$	-
		lotal Prin	ting/Hepro	duction C	\$	495.00
Communication Cost (telephone, fax, etc.)						Total
					\$	100.00
Postage Cost (overnight, stamps, etc.)						Total
					\$	25.00
Other (provide description on next line)		Mayoritie				Total
Other (provide description on next line) Acquired Property Staking (Stakes, Reba	ır, Caps, Fla	gging, etc.)			\$	Total 400.00
Other (provide description on next line) Acquired Property Staking (Stakes, Reba	ır, Caps, Fla		Out-of-poo	ket Evnen		400.00
Other (provide description on next line) Acquired Property Staking (Stakes, Reba	ır, Caps, Fla		Out-of-poc	ket Expen		-

ROADWAY CONSTRUCTION CONTRACT PLANS SCOPE OF SERVICES:

The following roadway construction contract plans services will be provided by Garver (Consultant) as described below. The limits of Consultant's final contract plans design is from North of Greenbrier Road's Interchange at Interstate 565 to North of Old Highway 20 and includes the design of the intersection approaches and traffic signal at Old Highway 20 and Greenbrier Parkway. (See Figure 1 attached hereto for illustration of project limits of Consultant's final contract plans.) The development of contract plans will follow the general procedure as shown in the City's Guide for Developing Construction Plans outlined in the City's standard engineering contract. Project design criteria and contract plans will meet applicable guidelines and requirements of the latest AASHTO, FHWA, and STATE design publications. The proposed tasks and corresponding man-day estimates are based on the level of effort anticipated to complete the tasks necessary to prepare the plans for construction letting. The CONSULTANT will perform the following as applicable:

- 1. The development of plans will generally follow the procedures shown in ALDOT's "Guide for Developing Construction Plans" and "Guidelines for Operation."
- 2. Consultant will prepare hydraulic designs and supporting calculations according to the City's Drainage Manual. In the absence of direction in the City's Drainage Manual, hydraulic design will be in conformity with approved chapters of the STATE Hydraulic Manual and FHWA hydraulic engineering circular publications; or, as otherwise instructed by the City.
- **3.** Consultant will, without compromising safety, select a hydraulic design that is cost effective. Designs will comply with the requirements of the STATE, City, and/or the FHWA.
- 4. Consultant, in the development of designs, will conduct investigations to ensure the geometric design of pavements, is such that the drainage capacity of the pavement is not exceeded in such a way as to create potentially unsafe water-film depths for hydroplaning to occur. Hydraulic Engineering software approved and utilized by FHWA will be used to design analyze and correct pavement drainage deficiencies in an effort to preclude or minimize high hydroplane potential situations. Particular attention will be given to transition sections and sags of all vertical curves.
- 5. Edge of Pavement Profiles with true elevations will be shown in the plans for all horizontal curve transitions and sag vertical curves where curb and gutter sections and/or a paved island is used.
- **6.** Consultant will prepare Floodplain Studies for the project including "Risk Assessment" and "Risk Analysis" where applicable in development of design in accordance with requirements of Federal Aid Program Guides, 23 CFR 650A. This fee is based on preparing "Risk Assessment". If a "Risk Analysis" is required, a supplemental agreement will be requested for the additional work.

- 7. Each Project plan assembly, submitted by the Consultant for hydraulic review, will contain no less than the minimum amount of hydraulic and hydrologic data necessary and specified in the City's Drainage Manual, or in Chapter 2 of the STATE Hydraulic Manual.
- 8. Consultant will prepare topographic quad maps showing drainage outfalls and other pertinent project data as required by ADEM for the application of storm water permit. Consultant will prepare an erosion and sedimentation prevention plan, including devices and/or designs for structural controls, to conform with ADEM publications of BMP's (Best Management Practices).
- 9. Each project Plan Assembly will include title, summary of quantities, typical section, drainage sections, plan and profile sheets, and all other sheets required for all work including grade, drain, base, pave, signing, and striping. The plans will show all existing topographical features, natural and man-made, surface and subsurface facilities for the area included in the proposed right-of-way and an area of sufficient detail for construction in accordance with current design layouts at intersections and within the project limits of construction.
- 10. Drainage Section drawings will be provided for all drains, existing and proposed, along the project centerline and within the project work limits. Streambed data acquired from a field survey will be used where applicable to establish and depict the streambed slope, drain inlet, drain outlet and the profile configuration of the ditch or channel as it ties-in to the drain.
- 11. Consultant will prepare designs and detailed contract plans at a horizontal scale of I" = 50' and vertical scale of 1" = 5', or as otherwise approved by the City, completely dimensioned for roadway construction, together with drainage and intersection layouts. Cross sections will be plotted at a horizontal and vertical scale of I" = 10'. Special drawings of complicated intersections may be prepared at scales other than those above as approved by the City.
- 12. Arrangements will be made by the City with any affected utility owner to prepare plans for any utility relocation. Following the 60% Complete Review, Consultant will provide utility base sheets and the City's Attachment 9 Utility Project Notification Form to the affected utility owners and the City that illustrate existing utilities for use and coordination with the utility companies. The finalized utility base sheets will be a part of the respective final plan assemblies.
- 13. Applicable provisions of the State of Alabama Department of Transportation's Standard Specifications for Highway Construction, 2012 Edition; or, applicable provisions of the City's Specifications for Construction will apply to the contract plans prepared by the Consultant under this Agreement. Consultant will prepare supplemental specifications and special provisions for approval of the City covering any needed items not covered by the ALDOT's Specifications for Highway Construction, 2012 Edition.
- 14. Consultant will prepare itemized estimates of quantities and construction cost for contract plans, itemized and symboled in accordance with Specifications for Highway Construction above noted using unit prices supplied or approved by the City on projects of comparable work. Upon completion of plans, copies of quantity computations will be provided the CITY.

- **15.** Preliminary detailed plans and estimates for project shall be submitted to the City before final tracings are completed. Consultant will prepare Traffic Control Plans for handling traffic during construction and sequence of construction will be prepared for each set of contract plans.
- **16.** Consultant will coordinate these plans with existing and proposed plans of the City; provided the City supplies Consultant the relevant information.
- 17. Consultant will prepare plans using size and weight of pens and other drafting techniques to facilitate development of one half (1/2) scale drawings.
- **18.** Following the 60% Complete Review, Consultant will make appropriate revisions to plans, submit a set of reproducible plans along with the corresponding CADD utility files for use of the City and Utility Owners for preparing utility relocation plans.
- **19.** Following the 60% Complete Review, Consultant will prepare reproducible right-of-way map showing property ties and ownership and submit to the City with the latest recorded deeds and preliminary plans showing construction limits for use of the City in acquiring right-of-way.
- 20. Three separate plan reviews plus other reviews up to and including a 100% Complete Review, will be held as required by the City. Consultant will prepare and submit to the City three (3) sets of ½-size and 1 set of Full-Size plans each for the 30%, 60%, and 90% Complete Reviews.
- **21.** After final plan revisions have been made, Consultant will submit two (2) sets of Full-Size prints of plans to the City for review and approval to advertise the project for construction. Estimates of construction cost will be furnished to the City with plan submittals as requested.

Norfolk-Southern Railroad Agreement Coordination

The Consultant will prepare and submit the design plans for the at-grade rail crossing for Norfolk Southern (NS) Railroad's review. Consultant will coordinate with NS Railroad and modify plans based on their comments as approved by the City. Consultant will also attend any on-site plan review meetings with NS Railroad or its representatives during the course of the project. Consultant, with assistance from the City, will prepare and transmit correspondence and plans to NS Railroad. Consultant will assist the City in obtaining from NS Railroad any Agreements, Rights-of-Entry, and/or Memorandums-of-Understanding that may be required. The City will be responsible for executing any Agreements, Rights-of-Entry, and/or Memorandums-of-Understanding with NS Railroad; and, the City will be responsible for payment of any fees or costs associated with submitting, obtaining, securing, or initiating any of this information from or with NS Railroad.

Project No.	TBA
Project Name	Greenbrier Parkway Phase I Final Design
Description	Roadway on New Location from North of I-565 to Hsv-Browns Ferry Road
Scope of Work	Field Surveying, Right-of-Way, Roadway Plans, and Geotechnical
Project Length	2.0 Miles
C.O.H. Project Engineer	Kathy Martin
Engineering Consultant	Garver, LLC

Linging Consultant Carver, LLC		ESTIMATED MAN-DAYS						
504514437514316					sign		er Tech. /	
ROADWAY PLANS		Project	Engineer	i	neer	CADD		
	# OF	DAYS/		DAYS/		DAYS/		
SHEET TITLE			TOTAL	SHEET	TOTAL		TOTAL	
TITLE SHEET	1.00			0.10	0.10		0.25	
INDEX SHEET	1.00			0.20	0.20		0.25	
PROJECT NOTE SHEET	1.00						0.25	
PLANS LEGEND	1.00		0.00	0.10	0.10	0.25	0.25	
TYPICAL SECTIONS					TO THE REAL PROPERTY.	Charles H		
Main Roadway	2.50	NAME AND ADDRESS OF TAXABLE PARTY.		1.50			3.13	
Cross Roads	2.00			1.25	2.50	The state of the s	2.00	
Detour & Misc.	1.00	0.50		1.00	1.00	0.75	0.75	
Ramps			0.00		0.00	MENTAL IN	0.00	
	NAME OF THE PARTY.		0.00		0.00		0.00	
	Sharife Line		0.00		0.00		0.00	
SUMMARY SHEET								
Main Summary	2.00	1.00	2.00	2.00	4.00	1.50	3.00	
SUMMARY BOX SHEETS				DE DE				
Roadway Pipe	0.50		0.25	1.00	0.50	0.25	0.13	
Culvert Extension, New Culvert	0.50	0.25	0.13	1.00	0.50	THE RESERVE OF THE PERSON NAMED IN	0.13	
Bridge Culvert Extension, New Bridge Culvert			0.00		0.00		0.00	
Guardrail	0.25	0.25	0.06	0.50	0.13	0.25	0.06	
Slope Paving (Under Bridges)	0.25		0.06	1.00	0.25		0.06	
Side Drain Pipe	0.50	0.25		0.75	0.38		0.13	
Signing	0.50	0.25	0.13	1.00	0.50	0.25	0.13	
Base & Pavement	0.50			1.50	0.75	0.50	0.25	
Bridge	0.50			2.00	1.00	1.00	0.50	
Striping & Pavement Markings	0.50	0.50	0.25	1.50	0.75	0.25	0.13	
Curb & Gutter	0.25	0.50	0.13	1.00	0.25	0.25	0.06	
Bridge End Slabs	0.25	0.10	0.03	0.25	0.06	0.10	0.03	
Roadway Lighting			0.00		0.00		0.00	
Sidewalk			0.00	ENTER.	0.00		0.00	
Slope Paving (Ditches)	0.25		0.06	1.00	0.25	0.10	0.03	
Ditch Summary	1.00	0.50		1.50	1.50	1.00	1.00	
Concrete Safety Barrier	0.25	0.25	0.06	0.50	0.13	0.10	0.03	
Retaining Wall	NAME OF STREET		0.00		0.00		0.00	
Misc. Boxes	1.00	1.00		2.00	2.00	1.00	1.00	
Erosion Control	1.00	0.75	0.75	2.00	2.00	1.00	1.00	
And the second second second second			0.00	F Pipps	0.00		0.00	

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	# OF	DAYS/	—	DAYS/		DAYS/	
SHEET TITLE	SHEETS	SHEET	TOTAL	SHEET	TOTAL	SHEET	TOTAL
PLAN & PROFILE			The Committee of				MATERIAL ST
Main Roadway	7.00	2.00	14.00	3.50	24.50	3.00	21.00
Crossroads	3.00	2.00	6.00		9.00		7.50
Detours	1.00	1.50	1.50	2.00	2.00	1.50	1.50
Retaining Walls	TANK DE	4.27	0.00		0.00	-	0.00
	THE STATE OF THE S		0.00	William	0.00		0.00
PAVING LAYOUT	ski izaliju i					TO HE SERVE	11/2
Main Roadway	7.00	0.50	3.50	1.00	7.00	0.75	5.25
Crossroads	3.00	0.25	0.75	0.75	2.25	0.50	1.50
Intersections	2.00	1.00	2.00	2.00	4.00	1.50	3.00
	PAVILYS IN		0.00	A 5 900	0.00	TENER!	0.00
INTERCHANGES		TO BYE	T BY BUY	PIEN			
Geometrics			0.00		0.00	Texture!	0.00
Ramps Profiles			0.00		0.00		0.00
Site Grading	110000	-Con-10.	0.00		0.00		0.00
Cross Sections			0.00	FULL DO	0.00		0.00
Signing	SE WAY		0.00	A MARKET	0.00		0.00
	2011/201		0.00		0.00		0.00
TRAFFIC CONTROL	116 000	VI - 844	17.10	(III)		A STATE OF	
Sequence of Construction	8.00	0.50	4.00	1.00	8.00	0.75	6.00
Summary & notes	2.00	0.25	0.50	1.00	2.00	0.25	0.50
Typical Section Sketches	2.00	0.25	0.50	0.50	1.00	0.25	0.50
Signing Layout	6.00	0.25	1.50	0.75	4.50	0.50	3.00
Special Drawings	2.00	0.25	0.50	0.50	1.00	0.50	1.00
	Tim (102)		0.00		0.00		0.00
STRIPING & SIGNING						, and the same	ME VER
Signing, Striping & Pavement Markers Layout	10.00	0.25	2.50	0.50	5.00	0.50	5.00
			0.00		0.00		0.00
	at of the		0.00	8 4 (9)	0.00		0.00
SIGNALIZATION						100	
Signal Layout (1 per site)	1.00	1.00	1.00	3.50	3.50	1.00	1.00
Traffic Analysis	1.00		0.75	2.00	2.00	Company of the last of the las	0.50
Traffic Counts (1 per site)	1.00	0.50	0.50	1.00	1.00	1.00	1.00
Signal Warrant Analysis (1 per site)	G.A.		0.00		0.00	A CANAL	0.00
Special Details	2.00	0.50	1.00	1.00	2.00	1.00	2.00
N/S Railroad Crossing Coordination	2.00	4.00	8.00	6.00	12.00	5.00	10.00
UTILITY SHEETS			Harry 185				
Utility Sheets	10.00	0.10		0.25	2.50	0.25	2.50
			0.00		0.00		0.00
DRAINAGE SECTIONS		12-11	uars T	9 77 78	DEVIN		
Pipe&Culvert X-Sect./Profiles	15.00	0.25	3.75	1.00	15.00	0.75	11.25
Name and the party of the party			0.00		0.00		0.00
		RM RM	0.00		0.00		0.00
LIGHTING		Market 197				minutes of	
Plan Layout			0.00		0.00	E 6 2 5 F	0.00
Special Details			0.00		0.00	Williams.	0.00
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			ES	TIMATE	MAN-	DAYS		
DOADWAY DI ANG	Î			Des	sign	Engine	er Tech. /	
ROADWAY PLANS	i		Engineer		neer	CADD		
	# OF	DAYS/		DAYS/		DAYS/		
SHEET TITLE	SHEETS	SHEET	TOTAL	SHEET	TOTAL	SHEET	TOTAL	
Erosion Control Layout	10.00		2.50	0.75		0.75	7.50	
Erosion Control Details	2.00	0.25	0.50	0.75	1.50	0.75	1.50	
ROADWAY CROSS SECTIONS						Mar San		
Main Roadway	75.00	0.10	7.50	0.25	18.75		18.75	
Crossroads	25.00	0.15	3.75	0.25	6.25	0.25	6.25	
Earthwork Balancing	1.00	1.00	1.00	2.50	2.50	0.50	0.50	
			0.00	MANAGE AND ASSESSMENT OF THE PARTY OF THE PA	0.00		0.00	
SUB-TOTAL	217.50		79.89		167.85		133.05	
REVIEW MEETINGS		VA TRIBLE	Halle					
Design Criteria/Kickoff			0.25		1.50		0.50	
30% Review			0.25		3.00		2.00	
60% Review			0.25		3.00		2.00	
90% Review			0.25		3.00		2.00	
Stormwater Permits			0.25		2.00		1.00	
Drainage Report			0.25		5.00		5.00	
Cost Estimates			0.25		5.00		1.00	
Design Hearing								
			0.00		0.00		0.00	
			0.00		0.00		0.00	
			0.00		0.00		0.00	
SUB-TOTAL			1.75		22.50		13.50	
TOTAL MAN-DAYS			81.64		190.35		146.55	

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Project No. TBA							
	Project Name Greenbrier Parkway Phase I Final Design						
	ay on New Location from North o						
Scope of Work Field	urveying, Right-of-Way, Roadwa	y Pl	ans, and Geo	techn	ical		
Project Length 2.0 M	es						
C.O.H. Project Engineer Kathy	/lartin						
Engineering Consultant Garve	LLC				NOT THE REAL PROPERTY.		
	ee Proposal (Roadway Pl	ans	s)				
PERSONNEL COST		11	Daily Rate @				
	Man-days		Shrs/day				
Project Engineer	81.	64	\$ 1,328.00	\$	108,417.92		
Design Engineer	190.	35	\$ 928.00	\$	176,644.80		
Engineer Tech. / CADD	146.	55	\$ 680.00	\$	99,654.00		
Clerical	3.	75		\$	1,350.00		
			Sub-Total	\$	386,066.72		
SUB-CONSULTANTS (attach man-c	v & foo EDOM oach sub consu	lton	ti obou toto	too t	or cook hors		
S&ME, Inc. (Geotechnical Investigation		ILAII	t, SHOW IOLA	\$	12,577.70		
oame, mo. (accessmod investigate	A PARTY TO SERVICE AND LITTLE OF THE SERVICE OF THE	45/87		\$	12,077.70		
eksterilos es kirakos zirakos ilizak				\$			
Subconsultant Administration Expense	5%)			\$	628.89		
		9	Sub-Total	\$	13,206.59		
		TO	TAL LABOR	•	399,273.31		

2:27 PM

Project No. TBA							
Project Name Greenbrier Park	way Phase I Fi	nal Design	1				
Description Roadway on Nev	w Location from	n North of	I-565 to Hs	sv-B	rowns I	err	y Road
Scope of Work Field Surveying,	Right-of-Way,	and Road	way Plans				
Project Length 2.0 Miles							
C.O.H. Project Engineer Kathy Martin		MEMORY CONTROLLER				Wh ==	01.2102
Engineering Consultant Garver, LLC	-						
Out-of-pocket Ex	penses (Ro	adway F	Plans)				0.4
PRINTING / REPRODUCTION COST		Application of		O COSTOCIALO			
Type of printing/reproduction	# of Sets	Sheets per Set	Total Sheets		st per heet		Total
30% Review 1/2-Size Submittal (11"x17")	3	125	375	\$	0.20	\$	75.00
60% Review 1/2-Size Submittal (11"x17")	3	225	675	\$	0.20	_	135.00
60% Review Full-Size Submittal (22"x34")	1	225	225	\$	2.60	\$	585.00
90% Review 1/2-Size Submittal (11"x17")	3	225	675	\$	0.20	\$	135.00
90% Review Full-Size Submittal (22"x34")	1	225	225	\$	2.60	\$	585.00
100% Final Submittal for Construction (22"x34")	2	225	450	\$	2.60	\$	1,170.00
		Total Prin	ting/Repro	oduc	ction C	\$	2,685.00
Communication Cost (telephone, fax, etc.)			- fear the		STATE OF	778	Total
						\$	100.00
Postage Cost (overnight, stamps, etc.)		200200					Total
	P. Marin Lind (1)					\$	100.00
				09-10		(0).E.	Total
							LOTAL
	wittele Demoi	to I Militino	oto	1		•	
Other (provide description on next line) Miscellaneous In-House Printing, Agency Sub	omittals, Permi	ts, Utilities	, etc.			\$	
Other (provide description on next line) Miscellaneous In-House Printing, Agency Sub				ense	s	\$	1,000.00
			, etc. ocket Expe	ense	s		1,000.00



October 24, 2012

Garver, LLC 5125A Research Drive Huntsville, Alabama 35805

Attention: Mr. Scott Leach, P.E.

Subject: Proposal for Geotechnical Engineering Services

Greenbrier Parkway

From North of Interstate 565 to CR-10 (Old Hwy 20)

Huntsville, Limestone County, Alabama

S&ME Proposal Number: 12-013

Dear Mr. Leach:

S&ME, Inc. is pleased to submit this proposal for providing Geotechnical Engineering Services for your project. Since 1973, S&ME has provided geotechnical engineering, environmental consulting, and construction observation and materials testing services on thousands of projects throughout the Southeast.

PROJECT INFORMATION

Project information and a preliminary plan of the first phase of the proposed roadway were provided by Mr. Blake Staton of Garver in an e-mail to Mr. Jeremy Jess of S&ME on January 11, 2012. Revised project information was provided by Mr. Leach in a phone conversation with Mr. Jeff Pepper of S&ME on October 23, 2012.

S&ME understands that the City of Huntsville plans to widen and realign Greenbrier Road to create a Greenbrier Parkway. The new roadway will be constructed west of the existing Greenbrier Road. An at-grade crossing is planned at the railroad tracks. The end of the first phase is 500 feet north of County Road 10 (Old Highway 20). This new intersection will be 2,500 feet west of the existing Greenbrier Road and County Road 10 (Old Highway 20). Improvements of County Road 10 are planned for approximately 1000 feet each direction from the new intersection. Station 29+50 is the beginning of the project and Station 120+00 is the end of the first phase.

GEOTECHNICAL SCOPE OF SERVICES

Our work will include the following:

A subsurface exploration consisting of the excavation, logging, and sampling of 15 soil test borings within the area of the proposed alignment. Each roadway boring will be performed at about 750 feet spacing along the alignment and will be advanced to a depth of 10 feet. In addition to drilling operations, S&ME will perform existing pavement thickness evaluations, topsoil measurements; delineate muck, and unsuitable material along the alignment. The borings will be left open for a minimum of 24 hours in order to record delayed groundwater measurements.

To characterize the strength of surface soils, we will perform soil test borings with standard penetration testing (SPT) in accordance with AASHTO T-206 procedures. We will also attempt to collect undisturbed samples for sophisticated laboratory testing. The laboratory testing will include resilient modulus, soil classification, and natural moisture content.

After our analysis is complete, a geotechnical materials report will be prepared presenting our findings, conclusions and recommendations relative to the proposed alignment. The materials report will present our findings, earthwork recommendations, including site preparation considerations, undercutting requirements, pavement subgrade preparation considerations and other soil related design.

CLIENT RESPONSIBILITIES

We request that Garver provides the following:

- An 11 X 17 copy of project plans with design traffic information.
- Stakes for the roadway centerline at 500 feet intervals..
- Elevations marked on each stake.

LIMITATIONS

Clearing and marking existing underground utilities is the Client's responsibility. As a precaution, we will contact Alabama One-Call. The utility location services will only mark public utility lines; therefore, we will need assistance in locating private lines or underground structures. We request the Client provide us with any drawings illustrating on-site utility locations. Our firm cannot be held responsible for damage to utility lines or subsequent loss of service if utility locations are not made known to us or are miss-located by others.

The Client will obtain right-of-entry from property owners along the project, as needed, for our drilling equipment and personnel. Also, moving the drilling equipment along the project and drilling the borings will leave some areas disturbed. Our services will include backfilling each

boring with auger cuttings, and asphalt cold patching pavement cores, unless otherwise directed. Over time, some settlement of the backfilled material should be expected. Please inform us if your requirements are different.

We should be informed of any possible contamination on the site prior to drilling to prevent spreading of the contamination. If contaminated soil or groundwater is encountered during drilling operations, it is possible that the contamination may be spread to other soil zones or aquifers that were not previously contaminated. Because it is impossible to eliminate the risk of encountering existing contamination during drilling and because the geotechnical exploration is an essential aspect of the services we are providing, our firm is not responsible for claims which may arise as a result of contamination allegedly caused by the geotechnical exploration.

SCHEDULE

Based on our current schedule, we expect to begin the geotechnical fieldwork within ten (10) working days of receipt of a written notice to proceed. The fieldwork will take about three (3) working days. We will have an engineer on site during the drilling operations to expedite fieldwork and provide efficient communication. Subsequently, we will keep you informed during all phases of the work. Weather may extend the fieldwork schedule, if rainy weather occurs prior to or after commencement of the fieldwork. We anticipate a draft report will be available for review about thirty (30) working days after drilling operations are complete. A final geotechnical reports will be completed 15 working days after the draft has been reviewed and we have received comments from the review.

GEOTECHNICAL FEES

The following budget was prepared and based on the described scope of work. Changes in the design may dictate scope modifications. We would be pleased to revise the fee once design work is more complete.

\$ 541.60
\$ 3,047.50
\$ 2,246.60
\$ 1,484.00
\$ 5,258.00
\$12.577.70

CONTRACTUAL ARRANGEMENTS

We understand that this project will be conducted in accordance with the contractual arrangements between Garver, LLC and S&ME, Inc.

October 24, 2012 Page 4 of 4

Greenbrier Parkway – Huntsville, Limestone County, Alabama S&ME Proposal No. 12-013

CLOSING

S&ME, Inc. appreciates the opportunity to offer our services to Garver for this project. If you should have questions concerning this proposal, or if additional information is required, please contact us.

Respectfully submitted,

S&ME, Inc.

Project Engineer

Attachments: Proposed Budget

Man-Days Estimate

Jeffrey C. Pepper, P.E.

Senior Geotechnical Engineer

Jeffrey C. Papper

Proposed Budget

GREENBRIER PARKWAY Huntsville, Limestone County, Alabama

ITEM	Quantity	Unit	U	NIT RATE	TOTAL
Project Planning & Coordination		1			
Staff Professional 4 (per hr)	5	Hour	\$	95.00	\$ 475.00
Mileage (per mi)	120	Mile	\$	0.56	\$ 66.60
Project Planning Subtotal					\$ 541.60
Surveying / Boring Stake Out					
	Provided by Garver	•			
Surveying Subtotal					\$ -
Drilling Program					
Mobilization / Demob.	1	Each	\$	400.00	\$ 400.00
Soil Testing (SPT) (per ft)	150	Ft.	\$	12.45	\$ 1,867.50
Rock Core (NQ) (per ft)	0	Ft.	\$	40.00	\$ -
Sample Jars (each)		Each	\$	2.00	\$ -
Thin wall tubes (each)	0	Each	\$	53.00	\$ -
Water Truck (per day)		Day	\$	145.00	\$ -
Piezometers (per ft)		Ft.	\$	5.00	\$ -
Temporary Casing w/ Casing Advancer (per fl	0	Ft.	\$	6.00	\$ -
Rock Core Boxes		Each	\$	12.00	\$ -
Mileage (per mi)		Mile	\$	0.56	\$ -
Per Diem for drillers (per man day)	0	Day	\$	75.00	\$ -
Backfilling borings w/bentonite		Ft.	\$	6.00	\$ -
Traffic Control (per day)		Day	\$	1,000.00	\$ -
Staff Technician 4 (per hour)	16	Hour	\$	45.00	\$ 720.00
Mileage (per mi)	0	Mile	\$	0.50	\$ -
Supplies to Patch Bridge Core Holes	2	Each	\$	30	\$ 60.00
Ground Penetrating Radar on Bridge Deck	0	Each	\$	1,100	\$ -
Dozer Rental	0	Day	\$	1,500	\$ -
Difficult moving/set casing/etc.		Hour	\$	150.00	\$ -
Drilling Program Subtotal					\$ 3,047.50
Field Engineering					
Staff Professional 2 (per hr)	24	Hour	\$	75.00	\$ 1,800.00
Staff Professional 4 (per hr)	4	Hour	\$	95.00	\$ 380.00
Per Diem (per man day)		Day	\$	75.00	\$ - 1
Mileage (per mi)	120	Mile	\$	0.56	\$ 66.60
Field Engineering Subtotal					\$ 2,246.60

Proposed Budget

GREENBRIER PARKWAY Huntsville, Limestone County, Alabama

ITEM	Quantity	Unit	UN	IIT RATE	TOTAL
Laboratory Testing					
Soil Classification with hydrometer	4	Each	\$	150.00	\$ 600.00
Natural Moisture (each)	28	Each	\$	8.00	\$ 224.00
pH (each)		Each	\$	12.00	\$ -
Sulfates (each)		Each	\$	95.00	\$ -
Chlorides (each)		Each	\$	95.00	\$ -
Resistivity (each)		Each	\$	65.00	\$ -
Triaxial Test UU (each)		Each	\$	400.00	\$ -
Triaxial Test CU (each)	0	Each	\$	600.00	\$ -
Unconfined Compression - Soil	0	Each	\$	80.00	\$ -
Unconfined Compression - Rock		Each	\$	75.00	\$ -
Consolidation (each)	0	Each	\$	400.00	\$ -
Organic Content (each)		Each	\$	50.00	\$ -
mr	2	Each	\$	330.00	\$ 660.00
Laboratory Testing Subtotal					\$ 1,484.00
Report Generation				····	
Staff Professional 2 (per hr)	0	Hour	\$	75.00	\$ -
Staff Professional 4 (per hr)	32	Hour	\$	95.00	\$ 3,040.00
Staff Professional 5 (per hr)	8	Hour	\$	125.00	\$ 1,000.00
Draftsman (per hr)	16	Hour	\$	50.00	\$ 800.00
Computer Processor (per hr)	8	Hour	\$	50.00	\$ 400.00
Photographs (each)	4	each	\$	2.00	\$ 8.00
Reproduction of Report (per page)	40	Each	\$	0.25	\$ 10.00
Mylar Drill Logs (per page)	0	Each	\$	7.00	\$ -
Report Generation Subtotal					\$ 5,258.00
		Total I	3udge	t Estimate	\$ 12,577.70

Man-Days Estimate GREENBRIER PARKWAY Huntsville, Limestone County, Alabama

TASK	MAN DAYS								
	STAFF PROFESSIONAL 2	STAFF PROFESSIONAL 4	STAFF PROFESSIONAL 5	STAFF TECHNICIAN 4	DRAFTSMAN	COMPUTER PROCESSOR			
Project Coordination		0.625							
Drilling, Logging, and Hand Augers	3	0.5		2					
Analysis, and Materials Report Preparation	0	4	1		2	1			
TOTALS	3	5.125	1	2	2	1			

ATTACHMENT 2 - ALABAMA IMMIGRATION ACT - REPORT OF OWNERSHIP FORM

	ion. Please provide the following	o information:
	clude "doing business as", if appl	4
	(100,000)	NHEE
(Please note that i	current taxpayer identification nu if this number has been assigned n the renewal form.)	I by the City and if you are renewing your business license, the nun
Type of Ownersh and entering the a paragraph C below	ppropriate Entity I.D. Number, if	<u>ded</u> portions of the following chart by checking the appropriate box applicable (for an explanation of what an entity number is, please s
PROBLEMS NA P		
☐ Individual or	Sole Proprietorship	
☐ General Par	tnership	
☐ Limited Part	nership (LP)	Number & State:
☐ Limited Liab	ility Partnership (LLP)	Number & State:
☐ Limited Liab Member)	ility Company (LLC) (Single	Number & State:
ELC (Multi-N	fember)	Number & State: 604.44 : AR
☐ Corporation		Number & State:
Other, pleas	e explain:	Number & State (if a filing entity under state law):
available through foreign entity is no	the website of Alabama's Secret	equired and if the business entity is registered in this state, the number of State at: www.sos.state.al.us/ , under "Government Records". provide the Entity I.D. number (or other similar number by whatever along with the name of the state.
certificates of inco applicable county	poration, organization, or other	pard to entities, the entity's formation documents, including articles capplicable formation documents, as recorded in the probate recorded articles; (1) specifically requested by the City, or (2) an End or provided.
If you are signing	ign this form in the space provide on behalf of an entity please inse	ed below and either write legibly or type your name under your sign and your title as well. Regional Title (if applicable): Office Admiss.
Signature:	A Training	1

ATTACHMENT 3 CITY OF HUNTSVILLE STANDARDS AND DESIGN GUIDES

- 1. City of Huntsville Standard Specifications for Construction of Public Improvements. Contract Projects, 1991.
- 2. City of Huntsville Engineering Standards, 1991.
- 3. City of Huntsville Design and Acceptance Manual for Force Mains and Pump Stations, 2011.
- 4. City of Huntsville Design and Acceptance Manual for Sanitary Sewers, 2011.
- 5. Alabama Department of Transportation Standard Specifications for Highway Construction, Current Edition.
- 6. City of Huntsville Subdivision Regulations, 1991.

ATTACHMENT 4 DESIGN REVIEWS

0% COMPLETE - PRE-DESIGN CONFERENCE

The ENGINEER shall meet with the OWNER at a 0% complete - Pre-Design Conference. The OWNER's representative (Project Engineer) will be introduced.

CONFERENCE FORMAT

The pre-design meeting will we initiated by the OWNER. The purpose of the conference will be to give the ENGINEER an opportunity to discuss the design of the PROJECT, to visit the PROJECT site, to receive copies of OWNER -furnished documents, if applicable, and to meet the OWNER'S Project Engineer and other personnel working on the PROJECT.

ATTENDEES: (Required)

- ENGINEER
- ALDOT (as appropriate for the type of project)
- Real Estate

- Landscape Management
- Utilities
- Traffic Engineering
- Planning

DISCUSSION TOPICS:

- Authority of OWNERS representative (Written submittal made to the ENGINEER)
- Scope of Work
- Time Requirements
- Budget Restraints
- Testing Requirements
- Permit Responsibilities
- Design criteria
- LC&E requirements
- Plan Requirements
- Special Conditions
- Utility Project
 Notification and a list of all utilities that need to be contacted.

Tree Ordinance

REQUIRED SUBMITTALS TO THE PROJECT ENGINEER

- 1. A Certificate of Insurance for the ENGINEER and the ENGINEER's subconsultants shall be submitted to the OWNER's PROJECT ENGINEER per Section 10.6.
- 2. Prior to the Pre-Design Conference, a completed **draft** design criteria document shall be prepared to the best of the ENGINEER'S ability and in conformance with his fee proposal and will serve as the basis of a discussion topic during the Pre-Design Conference. A **final** version of the design criteria based upon discussion during the meeting shall be prepared by the ENGINEER and distributed with the meeting minutes. A copy of a design criteria format may be found on the City of Huntsville web site at http://www.huntsvilleal.gov/engineering/index.php.
- 3. Within seven (7) calendar days of the 0% Complete Pre-Design Conference, the ENGINEER shall submit to the OWNER's Project Engineer two color copies and an electronic copy of a schedule in Microsoft Projects format showing the critical path and indicating the time frame for the required milestone events and submittals outlined in this document. The schedule shall support a PROJECT completion date in accordance with the Period Of Services in Article 5. When approved, a baseline of the schedule shall be saved from which variances in the schedule can be measured and evaluated.

ATTACHMENT 4 DESIGN REVIEWS

30% COMPLETE - CONCEPTUAL DESIGN

This design review is to show the OWNER how the functional and technical requirements will be met, to indicate the ENGINEER's approach to the solution of technical problems, to show compliance with design criteria or to justify noncompliance and to provide an estimate of probable cost. A field review shall be conducted at this juncture with the OWNER's staff and the ENGINEER to review the proposed field alignment of the PROJECT.

CONFERENCE FORMAT

ATTENDEES: (Required)

- Real Estate
- Landscape Management
- Utilities
- Traffic Engineering
- Planning
- City of Huntsville Construction Project Manager
- City of Huntsville Inspector
- City of Huntsville Environmental Representative

DISCUSSION TOPICS:

- ENGINEER presents recommended design/solutions along with other options and alternatives considered.
- ENGINEER presents updates on progress of permitting requirements
- ENGINEER presents progress on coordination with other project participants such as the State
 of Alabama, sub consultants, etc.
- ENGINEER presents budgetary constraints

REQUIRED SUBMITTALS TO THE PROJECT ENGINEER

- 1. A preliminary list of all permits to be obtained with associated fees.
- 2. An updated schedule in Microsoft Projects format showing the critical path shall be submitted.
- 3. Two color copies and an electronic copy of an updated schedule in Microsoft Projects format showing the critical path shall be submitted.

<u>ATTACHMENT 4</u> DESIGN REVIEWS

60% COMPLETE - PRELIMINARY DESIGN CRITERIA

The review of the PROJECT at this point is primarily to insure that funding limitations are not being exceeded and to insure that the contract documents, design analysis and cost estimates are proceeding in a timely manner, and that the design criteria and previous review comments are being correctly interpreted. An additional review may be required by the OWNER to review changes proposed from previous submittals.

CONFERENCE FORMAT

ATTENDEES: (Required)

- Real Estate
- Landscape Management
- Utilities
- Traffic Engineering
- Planning
- City of Huntsville Construction Project Manager
- City of Huntsville Inspector
- City of Huntsville Environmental Representative

DISCUSSION TOPICS:

- Additional land acquisition needs, as required.
- Utility Project Notification and a list of all utilities that need to be contacted.
- Technical specifications for special construction items not covered under standard specifications or deviations from standard specifications.
- Update on progress of permitting requirements.
- Erosion control plan requirements, if required by the OWNER.
- Budget constraints.
- Progress on coordination with other project participants such as the City of Huntsville Real Estate Officers (Engineering Department), State of Alabama, sub consultants, etc.

REQUIRED SUBMITTALS TO THE PROJECT ENGINEER

- 1. One full size print copy and one ½ size print copy of all drawings that have incorporated previous comments shall be submitted. Plan/Profile drawings shall be 75% complete. Right-of way drawings shall be 100% complete at this submittal (reference Real Estate Division Plan Requirements Section entitled DRAWINGS, included at the end of this proposal)
- 2. An update to the schedule in Microsoft Projects format showing the critical path shall be submitted.
- Unless determined to be inapplicable by the OWNER, Hydraulic reports 75% complete, shall be submitted.
- 4. Three (3) copies of preliminary plans for utilities shall be submitted.
- 5. Legal descriptions for takings shall be submitted. The information shall be 100% complete. (reference Real Estate Division Plan Requirements Section entitled DESCRIPTIONS, included at the end of this proposal)
- 6. Traffic Control Plan, if required. Plan shall be 60% complete at this submittal.
- 7. Detailed preliminary construction cost estimate shall be submitted.
- 8. Results of geotechnical investigations shall be submitted.
- 9. A list of comments made at the 30% review and a summary of each resolution.
- 10. Two color copies and an electronic copy of an update to the schedule in Microsoft Projects format showing the critical path shall be submitted.

ATTACHMENT 4 DESIGN REVIEWS

90% COMPLETE - FINAL REVIEW

The review of this submittal is to ensure that the design is in accordance with directions provided the ENGINEER during the design process.

CONFERENCE FORMAT

DISCUSSION TOPICS

Discussion topics will be handled open forum.

REQUIRED SUBMITTALS TO THE PROJECT ENGINEER

- 1. One full size print copy and one ½ size print copy of all drawings that have incorporated previous comments shall be submitted. Submittals include Plan/Profile drawings, Construction Details, Detailed cross-sections with cut and fill quantities and storm and sanitary sewer crossings, Erosion control plan, if required, Technical specifications, Right-of way drawings, Traffic Control Plan, Plans for Utilities, Signed Acceptance of Utility Project Notification Form by all affected parties, Design Calculations, and a final cost estimate. All submittals shall be 100% complete.
- 2. Any changes to Land Acquisition needs shall be identified and Legal descriptions for the changes shall be submitted.
- 3. A list of comments made at the 60% review and a summary of each resolution.
- 4. Calculations showing how quantities were determined for each bid item and how the item is to be measured in the field and paid. Three bound copies of corrected quantity calculations to match bid quantities. The following shall be required for each item:
 - Item Number
 - Item Description with standard specification used
 - Detailed calculation to include all measurements, conversion factors, and "standard" weights used
 - Final "calculated" amount and any "increased" amounts
 - Notes to include any deviation from referenced standard specifications

<u>ATTACHMENT 4</u> DESIGN REVIEWS

100% COMPLETE - READY TO ADVERTISE

After the 90% review, the ENGINEER shall revise the construction documents by incorporating any comments generated during the previous design reviews. The ENGINEER shall prepare final hard copy contract specifications, prepare a bid form, and update the cost estimate as necessary.

CONFERENCE FORMAT

This is a submittal only. Return this sheet with submittal

YES	NO	REQ	UIRED SUBMITTALS TO THE PROJECT ENGINEER
		1.	Two (2) sets of complete construction drawing prints sized 24" x 36" sealed and marked "ISSUED FOR CONSTRUCTION". Drawings information shall be referenced to Alabama State Plane Coordinate system, NAD1983 Alabama East Zone as described in the <u>Code of Alabama</u> (1975), Section 35-2-1. Surveys shall be tied to a minimum of two accepted GPS monuments or one GPS tie point plus an astronomic observation to determine grid north or GPS Survey.
		2.	One (1) Micro station digital and One (1) digital file in either .tiff or .pdf format of construction drawings (must be signed and sealed) — sized 11" x 17".
		3.	Two (2) sets of right-of-way drawing prints sized 24" x 36" sealed and marked "ISSUED FOR CONSTRUCTION". Drawings information shall be referenced to Alabama State Plane Coordinate system. NAD1983 Alabama East Zone
		4.	One (1) Micro station digital file of right-of-way drawings.
		5.	Two (2) print sets of 8-1/2" x 11" legal descriptions for right-of-way (REVISED SETS ONLY)
		6.	One (1) digital text file of legal descriptions for right-of-way (REVISED FILE ONLY)
		7.	One (1) print copy of Final Construction Cost Estimate.
		8.	One (1) digital spread sheet file of Final Construction Cost Estimate.
		9.	Three (3) printed and bound copies of corrected quantity calculations to match Final Bid Quantities.
		10.	One (1) digital spread sheet file (Excel 2003 format) of Final Bid Quantities.
		11.	Two (2) print sets of contract specifications.
		12.	One (1) digital text file of contract specifications.
		13.	One (1) complete set of signed and sealed calculations.
		14.	One (1) complete set of all approved permits including Location, Character, and Extent, COE, ADEM, etc.
		15.	One (1) complete set of all field notes.
		16.	One (1) copy of digital aerial photography obtained for this PROJECT in (.tif) format, as necessary.
		17.	Utility Project Notification forms and a list of all utilities that need to be contacted.
			Engineer

ATTACHMENT 5 - ENGINEERS PERSONNEL FEE SCHEDULE

Garver, LLC Hourly Rate Schedule

(These rates are effective through the duration of this contract)

Classificatio	n .		Rates	_
Engineers				-
_	E-6	\$	202.00	S.Leach
	E-5	\$	166.00	
	E-4	\$	132.00	
	E-3	\$		P.Crenshaw, A.Dinges, M.Spayd, B.Staton, Z.Turne
	E-2	\$	105.00	F.Crensnaw,A.Dinges,ivi.Spayu,b.Staton,Z.Turne
	E-1	\$ \$		W.T. and Addison
	E-1	Ф	85.00	K.Troesch, M.Harp
Architect / La	andscape Architect			
	A-4	\$	135.00	
	A-3	\$	120.00	
Planners				
	P-2	\$	124.00	
	P-1	\$	104.00	
Environment	al Calantiat			
Evailoument	ES-1		\$90.00	R.Mountain, J.Spires
			400.00	Thirties and the second
Designers				
	D-2	\$	101.00	
	D-1	\$	78.00	
Technicians				
	T-2	\$	82.00	18
	T-1	\$	72.00	***
Surveyors				
surveyors	S-5	\$	105.00	W.Carpenter
	S-4		84.00	w.Carpenter
	S-3	φ.		
		\$ \$ \$	63.00	
	S-2	\$	49.00	
	S-1	\$	39.00	
	2-Man Crew (Survey)	\$	150.00	
	3-Man Crew (Survey)	\$		M.Storey, B. Hood, S. Few, J. Gargls, R. Byrd
	2-Man Crew (GPS Survey)	\$	168.00	
	3-Man Crew (GPS Survey)	\$	202.00	
Construction	Observation			
	C-3	\$	142.00	
	C-2	\$	101.00	
	C-1	\$	78.00	
Administratio	on.			
	X-3	œ	78.00	
		\$		
	X-2	\$	58.00	
	X-1	\$	45.00	P.Bridgeman, E.Aaron

ATTACHMENT 6 - PROGRESS REPORT (Article 8)

PROGRESS REPORT NO.	FOR MONTH AND YEAR		
PROJECT	P	PROJECT NO.	
DATE CITY'S PROJE	CT ENGINEER		
CONSULTANT	CONSULTANT'S PRO	J. MAN	
CURRENT MONTH % COMPLETE: _	PREV. MONTH %	COMPLETE:	
ATTACH A "SHOULD HAVE STARTED MICROSOFT PROJECTS THAT LISTS			
ATTACH A "TASKS STARTING SOON THIRTY (30) DAYS AFTER THE DATE		OFT PROJECTS WITH A DATE RANGE OF PORT.	=
STATE WHAT ACTION IS BEING TAK	EN TO BRING PROJECT E	BACK TO SCHEDULE:	
			_
30%	SCHEDULED DATE	ACTUAL DATE	EPORT" FROM TH A DATE RANGE OF 4) with the Project date shall not be dates shall be will not be extended by knowledge.
60% 90%		Minute State Control First & Control First Address of Control	
100% "FINAL" INVOICE SUBMITTED			
SUBCONSULTANTS PAID IN FULL CONTRACTED COMPLETION DATE:	November 2, 2013		
(These scheduled dates shall be agreed Engineer and noted monthly on each prichanged except by contract change ord accompanied by a new project schedule	ogress report. The schedule er. Changes to the schedule		
UPDATED SCHEDULE ATTACHED? *If yes, send an electronic copy to the P	YESNO		
COMMENTS:			
This progress report (4 copies) shall be without a contract modification.	submitted monthly. Schedu	lled completion dates will not be extended	
CERTIFICATION: I certify that the state	ed information is true and ac	curate to the best of my knowledge.	
CONSULTANT DATE	CITY PROJECT	TENGINEER DATE	

ATTACHMENT 7 - SUB CONSULTANTS ENGAGED BY THE ENGINEER (Article 9.2)

CONSULTANT NAME AND ADDRESS	DESCRIPTION OF SERVICES	FEE
S&ME, Inc. 399 Executive Drive Huntsville, AL 35816	Geotechnical Engineering Services	\$11,948.81
	-	
	=	
	SUB-TOTAL	\$11,948.81
	5% Administrative Fee	\$628.89
	TOTAL	\$12,577.70

ATTACHMENT 8 - CONTRACT DOCUMENT REQUIREMENTS LIST

REQUIREMENT	SUBMIT TO	SUBMITTAL REQUIREMENT DATE	NUMBER OF COPIES	REFERENCE SECTION OF CONTRACT AND COMMENTS	
Deviations from OWNER's standards.	OWNER	Prior to incorporating deviations.	2	Article 2.5	
Products or materials specified by the ENGINEER that are available from only one source.	OWNER	Prior to 100% submittal.	2	Article 2.2	
Approval of ENGINEER's Request for Payment.	OWNER	Within ten (10) days of receipt of the request from the ENGINEER.	N/A	Article 3.4	
Approval of ENGINEER submittals	OWNER	So as to cause no delay to the ENGINEER or the PROJECT.	N/A	Article 3.8	
Change order changes that reduce construction requirements.	OWNER	Prior to authorizing a change.	N/A	Article 3.11	
Any information pertaining to any claim.	OWNER	Immediately	2	Article 3.12	
Information pertinent to the PROJECT, all criteria and full information as to OWNER's requirements, copies of all design and construction standards.	ENGINEER	So as to not delay the services of the ENGINEER.	2	Article 5.1, 5.2	
Notification of delays.	ENGINEER; OWNER	Promptly	4	Article 6.1	
ENGINEER's monthly invoices.	OWNER	Monthly	4	Article 8.1.1	
Consultant progress report.	OWNER	Monthly	4	Article 8.1.1	
Records, data, parameters, design calculations and other information.	OWNER	Cancellation of contract.	2	Article 9.7	
Documentation, records of reimbursable expenses, record copies of all written communications, and any memoranda of verbal communications related to the PROJECT.	OWNER	Upon notice from the OWNER.	2	Article 9.4	
Termination notification.	OWNER or ENGINEER	7 days prior to termination.	2	Article 9.10 & 9.11	
Certificate of Insurance for ENGINEER.	OWNER	At 0% design conference	1	Article 10.2(B), 10.6, and Attachment 4.	
Insurance cancellation, suspension, or reduction in coverage or limits.	OWNER	30 days prior to effective date except for cancellation which is 10 days notification.	1	Article 10.4(A)	

Certificate of insurance for sub consultants/subcontractors.	OWNER	At 0% design conference.	1	Article 10.7	
A schedule in Microsoft Projects format showing the critical path.	Project Engineer	Within 7 calendar days of Pre-design conference, 30% complete design review. 60% design review. Attachment 6	1 hard; 1 digital	Attachment 4	
Drawings.	Project Engineer	30% complete design review, 60% design review, 90% review, and 100% complete.	3	Attachment 4	
Cost estimate.	Project Engineer	30% complete design review, 60% review, 90% review, and 100% complete.	3	Attachment 4	
Hydraulic reports.	Project Engineer	60% design review.	2	Attachment 4	
Preliminary plans for utilities.	Project Engineer	60% design review.	3	Attachment 4	
Real Estate Deliverables	Project Engineer	60% design review, 90% review, 100% complete.	Reference Real Estate Division Plan Requirements	Attachment 4, 14 Real Estate Plan Requirements at end of this proposal document	
Traffic Control plan.	Project Engineer	60% design review.	N/A	Attachment 4	
Results of geotechnical investigations.	Project Engineer	30% design review.	2	Attachment 4	
Technical specifications.	Project Engineer	90% review, 100% complete.	N/A	Attachment 4	
Relocation of Utilities	Project Engineer	0% review – list of all utilities that need to be contacted 60% review – from all affected parties 90% review – Signed Acceptance Utility Project Notification Form	2	Attachment 4, 10	
Design Calculations	Project Engineer	90% review, 100% complete	1	Attachment 4	
Digital copy of drawings.	Project Engineer	100% complete – 1 in .dgn format; 1 in .tiff or .pdf format	2	Attachment 4	
Digital text files.	Project Engineer	100% complete.	1	Attachment 4	
Bid Quantities.	Project Engineer	100% complete. Digital in Excel 2003 format and hard copy	3	Attachment 4	
Permits and Permit Applications	Project Engineer	100% complete.	1	Attachment 4	
Field notes.	Project Engineer	100% complete.	1	Attachment 4	
Digital aerial photography.	Project Engineer	100% complete.	1	Attachment 4	
Progress Report (Art. 8)	Project Engineer	30% complete design review, 60% design review, 90% design review, 100% completion stage.	4 hard; 1 digital monthly	Attachment 4	

ATTACHMENT 9 - REQUIREMENTS FOR DOCUMENT SUBMITTALS

All drawings shall be sized 24" x 36", unless otherwise approved by the OWNERS Project Engineer.

Title blocks shall as a minimum, contain the name of the project, date, city project number, and ENGINEER's name. The title block of drawings shall contain a space for the names of the preparer and the reviewer and/or checker. These blocks shall be signed on each submittal (See Attachment "11" for sample standard drawing format). Drawings shall contain alphanumeric revision designations. Drawings issued for review shall be issued with alpha revision designation and the revision letter shall be changed for each submittal containing drawing changes. Drawings issued for construction shall be issued with numeric designation at revision level "0" and described as "Issued for Construction" in the revision description block. Subsequent drawing changes require the revision level to be raised using successively higher numbers and the changes to be marked by circling and briefly described in a revision block.

Unless otherwise specified by the Owners Project Engineer, all drawings for review submittals shall be full or half-size copies. All documents shall be clearly marked in a revision block indicating the applicable submittal milestone, i.e. 30%, 60%, 90%, etc.

Submittals required by the State of Alabama for their review, bidding, etc., shall be of the size, form and numbers of copies as the state may require even though such submittals may differ from the submittals set forth as being required elsewhere in this Agreement.

All drawings shall be prepared in Micro station .DGN format, unless otherwise approved by the OWNERS Project Engineer. Transmittal letters shall consist of a list of files being submitted, a description of the data in each file, and a level/layer schematic of each design file. DGN design files shall have working units as follows: master units in feet, no sub-units, and 1,000 positional units. All data submitted shall use NAD 1983 Alabama East Zone horizontal datum and NAVD 88 vertical datum coordinates.

Digital files shall be submitted by 4-3/4" CD ROM, DVD, 3 and 1/2 inch floppy disk, or to the City of Huntsville F.T.P. site.

All print copies shall be first generation copies.

All text documents shall be prepared in Microsoft Word 2007 format.

All spreadsheets shall be in Microsoft Excel 2007 format.

A schedule showing the critical paths shall be in Microsoft Projects format, unless otherwise approved by the OWNERS Project Engineer.

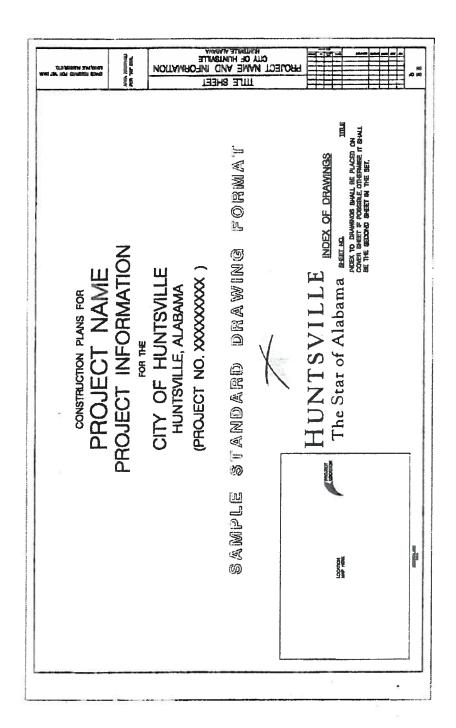
Aerial photography files shall be in Intergraph (.COT) or (.tiff) format.

All mapping shall meet National Map Accuracy Standards unless otherwise noted. If National Map Accuracy Standards are not met, the accuracy of the map shall be identified to the Owners Project Engineer and on the maps derived from the aerial survey. National Map Accuracy Standards are shown below. This and other map standards are shown in Department of the Army, US Army Corps of Engineers standard, "EM 1110-1-1000, Engineering and Design - Photogrammetric Mapping". http://140.194.76.129/publications/eng-manuals/em1110-1-1000/toc.htm

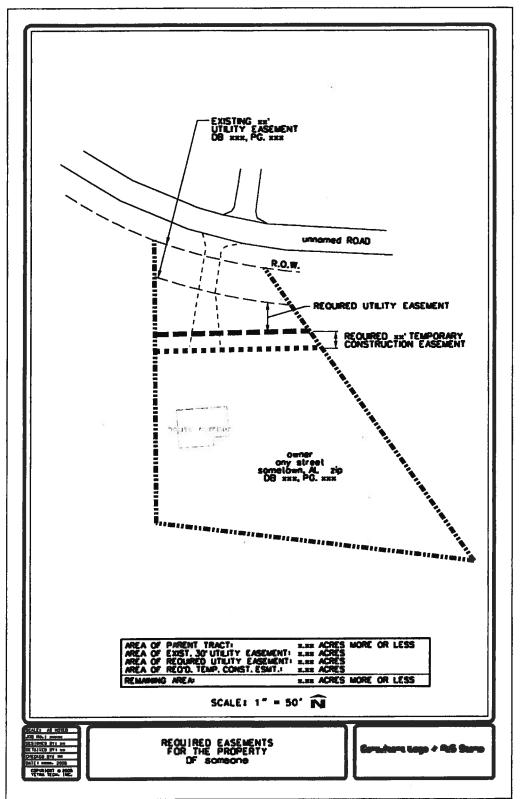
ATTACHMENT 10 – UTILITY PROJECT NOTIFICATION FORM

NAME:(Utility Name)	_
(Simy Name)	
PROJECT NAME:	PROJECT NUMBER:
CONSULTING ENGINEER:(Name)	
ENGINEERING REPRESENTATIVE	PHONE:
I have reviewed design drawings or oth	ner information as available, and:
DO	DO NOT
calendar days from the Notice to Proceed, is a	location is required, a construction duration of nticipated to be required for relocation. re poles or facilities that have to be relocated prior to
NAME OF UTILITY:	20
NAME OF UTILITY:	
NAME OF UTILITY:	
OTHER:	
COMMENTS:	····
BY:AUTHORIZED REPRESENTATIVE	
FIELD CONTACT PERSON:OFFICE CONTACT PERSON:	PHONE: PHONE:
DATE:	

ATTACHMENT 11



ATTACHMENT 12 SAMPLE



...\easementtemplate_V7.dgn 3/17/2006 12:11:14 PM

ATTACHMENT 13

United States National Map Accuracy Standards

With a view to the utmost economy and expedition in producing maps which fulfill not only the broad needs for standard or principal maps, but also the reasonable particular needs of individual agencies, standards of accuracy for published maps are defined as follows:

- 1. Horizontal accuracy. For maps on publication scales larger than 1:20,000, not more than 10 percent of the points tested shall be in error by more than 1/30 inch, measured on the publication scale; for maps on publication scales of 1:20,000 or smaller, 1/50 inch. These limits of accuracy shall apply in all cases to positions of well-defined points only. Well-defined points are those that are easily visible or recoverable on the ground, such as the following: monuments or markers, such as bench marks, property boundary monuments; intersections of roads, railroads, etc.; corners of large buildings or structures (or center points of small buildings); etc. In general what is well defined will be determined by what is plottable on the scale of the map within 1/100 inch. Thus while the intersection of two road or property lines meeting at right angles would come within a sensible interpretation, identification of the intersection of such lines meeting at an acute angle would obviously not be practicable within 1/100 inch. Similarly, features not identifiable upon the ground within close limits are not to be considered as test points within the limits quoted, even though their positions may be scaled closely upon the map. In this class would come timber lines, soil boundaries, etc.
- 2. **Vertical accuracy,** as applied to contour maps on all publication scales, shall be such that not more than 10 percent of the elevations tested shall be in error more than one-half the contour interval. In checking elevations taken from the map, the apparent vertical error may be decreased by assuming a horizontal displacement within the permissible horizontal error for a map of that scale.
- 3. The accuracy of any map may be tested by comparing the positions of points whose locations or elevations are shown upon it with corresponding positions as determined by surveys of a higher accuracy. Tests shall be made by the producing agency, which shall also determine which of its maps are to be tested, and the extent of the testing.
- 4. **Published maps meeting these accuracy requirements** shall note this fact on their legends, as follows: "This map complies with National Map accuracy Standards."
- 5. **Published maps whose errors exceed those aforestated** shall omit from their legends all mention of standard accuracy.
- 6. When a published map is a considerable enlargement of a map drawing (manuscript) or of a published map, that fact shall be stated in the legend. For example, "This map is an enlargement of a 1:20,000-scale map drawing," or "This map is an enlargement of a 1:24,000-scale published map."
- 7. **To facilitate ready interchange and use of basic information for map construction** among all Federal mapmaking agencies, manuscript maps and published maps, wherever economically feasible and consistent with the uses to which the map is to be put, shall conform to latitude and longitude boundaries, being 15 minutes of latitude and longitude, or 7.5 minutes, or 3-3/4 minutes in size.

U.S. BUREAU OF THE BUDGET

ATTACHMENT 14

ENGINEERING DEPARTMENT - REAL ESTATE DIVISION PLAN REQUIREMENTS

DRAWINGS:

Individual Parcels

- Each individual parcel 8 ½" x 14" (dgn or dxf format)
- Show Calculations
 - ➤ Before
 - ➤ After
 - Taking
- All Parcels shall be closed shapes (polygons).
- Show Existing and Proposed Right-of-Way on each individual parcel map.
- Property Ownership

Overall Project Land Acquisition Maps

- Total project drawing in dgn or dxf format
- Indicate the following:
 - > Stationing on Centerline
 - > Existing Right-of-Way
 - > Proposed Right-of-Way
 - > Existing Easements
 - Proposed Easements
 - Existing Pavement
 - Proposed Pavement/Sidewalks/Structures
 - Existing Structures
 - Property Ownership

Color Standards	(SA)	<u>MPLE)</u>	
<u>Description</u>	Color	Line Style	Type
Existing ROW	Red	Medium Dashed	
Proposed ROW	Red	Solid	Closed Polygon
Existing Easements	Orange	Medium Dashed	, ,
Proposed Easements	Orange	Solid	Closed Polygon
TCE	Pink	Solid	Closed Polygon

DESCRIPTIONS:

- Microsoft Word on 3.5" Diskette or CD
- Each Description shall be complete and independent (separate file).
- Hard Copies signed and stamped by PLS.

GENERAL:

- P.K. Nails or other permanent stationing markings shall be required.
- Re-staking of right-of-way or easements may be required (See Article 4).
- All survey plats to be on Alabama State Plane Datum. Strip Maps shall indicate at least 2 monuments in place with Alabama State Plane Coordinate values shown on each.
- Parcel plats and legal descriptions shall indicate the Alabama State Plane Coordinate NAD83 Alabama East Zone
 Value of the point of beginning.

ATTACHMENT 15 - GIS BASE MAP

DESIGN	CONTENTS	LINE	COLOR	WEIGHT	TEXT	EONT	CELL
LEVEL	CONTENTS		COLOR	WEIGHT		FONT	CELL
		CODE	İ		SIZE		NAME
							_
1	State Plane Coordinate Grid	0	0	0	20	0	
2	Benchmarks	0	0	0			<u> </u>
3	Private Street Text	0	105	0	20	0	
3	Street Text	0	3	0	20 (or 18)	0	
4	Street R/W	7	0	0	20 (0, 10)		
5	Street Centerline	7	0	0		·	
6	Street Pavement	0	3	0			
6	Proposed Street Pavement	3	16	0			
6	Private Streets	0	105	0		-	
6	Proposed Private Road	3	105	0			
7	Parking Lots	1	3	1			
7	Private Lots used as Roads	1	105	1			
8	Secondary RoadsPrivate	2	105	0			
8	Secondary Roads	2	3	0			
8	Trails	3	3	0			
9	Secondary Roads/Trails Text	0	3	0	20	0	
10	Sidewalks	5	3	0			······································
11	Bridges/Culverts/Paved	0	0	0	88		-
	Ditches	_		, and the second			
12	Hydrology - Major	6	1	0			
12	Hydrology - Minor, Ditches	7	1	0			·
13	Hydrology - Text	0	1	0	25	23	
14	Tailings & Quarries, Athletic	ō	1	0			
	Fields/Text, misc. areas		-	, j			
15	Greenways	3	48	0			
16	Speed Tables	0	3	0			TCALM
17	Railroad Tracks (Patterned)	0	2	0			RR
18	Railroad Text	0	2 =	0	25	0	- ICIC
19	Railroad R/W	2	2	0			
20	Utility Poles (Cell)	0	5	0	-		P POLE
21	Utility Easements	3	5	0		* -	TIOLE
22	Utility Text	0	5	1			
23	Geographic Names	0	3	1	~		
24	Building Structures	0	0	ō			
24	Pools and Text	0	1	0	10	1	
24	Future Site of Structures	2	0	0			STRUCT
24	Existing Structures (exact	2	0	0			STRCEX
	location and shape unknown)	_		Ĭ		1	BIRCLA
25	Property Lines/ refuge bdy.	6	6	1	30	1	
26	Cadastral Polygons	6	6	0			
27	Ownership Text	0	6	1			
28	Cemeteries/Text	4	6	0	10	1	
29	Lot Numbers				25	0	
30	Block Numbers		-		30	0	
31	Addition Names	0	0	0	35	0	
32	Open		 +	-			
33	Lot Ticks		·				
34	Lot Lines/Property Lines	6	6	0			
35	Trees/Hedge Rows	0	6	0	AS=1		TREES
36	GPS Monuments	0	5	0	18	23	
				<u> </u>	10		CONTRL

37	2' Topo Contour						T
38	5' Topo Contour	0	7	0	1		
39	25' Major Topo Contour	0	7	0		· · · · · ·	1
40	X Spot Elevation	0	7	0	1		
41	FEMA Monuments/Labels	0	3/0	0	18	1	FEMA
42	Quarter Sections						
43	Section Lines	0	5	0		······	
44	Features	0	2	0			
44	Cell Towers	0	12	0	AS=1		CELTWR
45	Fences (Pattern)	0	8	0	AS=1		FENCE
46	Format/Legend	0	0	0			Limleg Madleg
47	Mass Points	0	7	2			
48	Break Lines	0	7	2			
49	Open						<u> </u>
50	Billboards	0	37	1		11	BBOARD
51	Sanitary Sewer	0		3			
52	Sanitary Sewer Text						
53	Storm Water Features	0		3	1		
54	Storm Water Text						
55	Open				1		
56	Property Address	0	ī	0	 	1 10.00	
57	Text Tag for Buildings	0	1	0	10-20	1	
58	One Way Arrows	1	3	i i	1020		
59	Open		-	<u> </u>			
60	Open		 		1		
61	Open				1		
62	Monuments for Setup						
63	(point cell) Open				 		<u> </u>